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VOLUME LXXV.

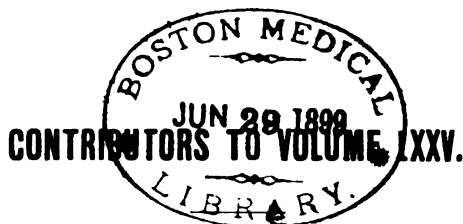
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 Wiener, Hugo, M.D., Prague.



Fig. 1	81
Fig. 2	81
Fig. 3	82
Fig. 4	82
Fig. 5. Hospital Chart	290
Fig. 6. Hospital Chart	291
Fig. 7. Hospital Chart	293
Fig. 8. Hospital Chart	294

INDEX TO VOLUME LXXV.

A

Absorbable and Non-absorbable Suture Material, 317
 Accuracy in Thyroid Medication, 231
 Action of Bovine in a Complicated Gynecological Case, 260
 Action of Eudozine, 154
 Action of Mineral Waters and Drugs on the Bile, The, 263
 Address of the Chairman, Dr. Samuel A. Fisk, of Denver, Colo., 92
 Adrenal Tumors of the Kidney, 210
 Adult Male with Four Nipples, An, 163
 Alvarenga Prize of the College of Physicians of Philadelphia, 303
 Ameboid Bodies in the Blood of Vaccinated Subjects and in Cases of Variola, 155
 American Medical Association, 63, 92, 172
 American Medical Association Meeting, 47
 American Microscopical Society, The, 247
 Amyolytic Ferments, 51
 Amyx, R. F., Some Cases of Typhoid Fever Treated with Viscolein, 289
 Anesthetic Leprosy Contagious—Impey's Theory Disproved, Albert S. Ashmead, 177
 "Anesthetic Leprosy is Contagious," 45
 Anger is an Unreality of War, Says Captain Lee of the Royal Artillery, 247
 Anomalous Truncus Brachicephalicus Associated with Aortic Disease, 220
 Antipyrine Exanthema, 89
 Antiseptic Dressing, A New, 267
 Antitoxin is Not "Vaccine Virus," 119
 Apomorphine and Its Uses, 19

Apparent Increase of Insanity in Ontario, 288
 Appendicitis, 52
 Appendicitis, Dr. Robert T. Morris on, 200
 Argon in the Blood, 180
 Ashmead, Albert S., Anesthetic Leprosy Contagious, 177
 Ashmead, Albert S., Descent and Variation of the Bacillus, 9
 Ashmead, Albert S., Dr. Magalhães's Views on Leprosy Rejected by some South American Authorities, 297
 Attempted Monopoly, An, 146

B

Ballantyne, J. W., Occasional Periscope of Antenatal Pathology, 240
 Ballantyne, J. W., The Pathology of Antenatal Life, 18
 Barozzi, J., The Treatment of Gonorrheal Urethritis by Means of Protargol, 141
 Baths of Nauhelm, 78
 Biliary System, The Minute Anatomy and Physiology of, 314
 Blackwater Fever and Hemoglobinuria, 309
 Blennostasine in Hay Fever, 162
 Blue Nasal Secretion, A Case of, 275

BOOK REVIEWS:

American Pocket Medical Dictionary, Dorland, 336
 An American Text-Book of Gynecology, Baldy, 280
 An American Text-Book of the Diseases of Children, Starr and Westcott, 279
 Atlas and Abstract of the Diseases of the Larynx, Grünwald, 114
 Atlas and Epitome of Operative Surgery, Zuckerkandl, 167

Book Reviews.—Continued.

- Atlas of Legal Medicine, Van Hoffman, 115
 Atlas of Syphilis and the Venereal Diseases, Mracek, 166
 Blood Chart, Da Costa, Jr., 118
 Bulletin of the Harvard Medical Alumni Association, No. 12, 287
 Care of the Baby, Griffith, 335
 "Cataphoresis," or Electric Medicamental Diffusion as Applied in Medicine, Surgery and Dentistry, Wm. Jas. Morton, 57
 Cleft Palate, Etc., Lane, 337
 A Clinical Manual of Skin Diseases, Hardaway, 284
 Clinical Report of the Rotunda Hospitals, 62
 A Clinical Text-Book of Medical Diagnosis, Vierordt, 284
 A Compend of Diseases of the Skin, Schamberg, 116
 Conservative Gynecology and Electro-Therapeutics, Massey, 114
 The Determination of Sex, Schenk, 169
 Diet and Food, Haig, 333
 Diet for the Sick, Hibbard and Drant, 342
 Diseases of the Nervous System, Beevor, 167
 Diseases of Women, Dudley, 225
 Essentials of Materia Medica, Etc., Morris, 336
 Hand-Book of Materia Medica for Trained Nurses, Groff, 169
 Hay Fever and Its Successful Treatment, Hollopeter, 117
 Histology; Normal and Morbid, Dunham, 329
 Hysterectomy for Fibro-Myomata, Dixon-Jones, 171
 Illustrierte Rundschau der Medicinisch-Chirurgische Technik, 61
 Inflammation of the Bladder and Urinary Fever, Moullin, 168
 International Clinics, 164, 338
 Laboratory Directions for Beginners in Bacteriology, Moore, 229
 Lectures on Tumors, Hamilton, 168
 Manual of Diseases of the Skin, Bulkley, 340
 A Manual of General Pathology, Lazarus-Barlow, 165
 A Manual of Modern Surgery, Da Costa, 165
 A Manual of Otology, Bacon, 283

Book Reviews.—Continued.

- Manual of Physical Diagnosis, Tyson, 169
 Manual of Practice of Medicine, Taylor, 337
 Medical and Pharmaceutical Chemistry, Bartley, 331
 Modern Gynecology, C. H. Bushong, 59
 Notes on Malaria, Wilson, 118
 The Office Treatment of Hemorrhoids, Fistula, etc., Kelsey, 169
 Physician's Visiting List, 343
 Pocket Medical Dictionary, Gould, 339
 A Practical Text-Book on the Diseases of Women, Lewers, 58
 Les Premiers Soins à donner en Cas d'Accidents Subits, Esmarch, 58
 The Principal Poisonous Plants of the United States, Chesnut, 287
 Principles and Practice of Medicine, Osler, 333
 Proceedings of the Association of American Anatomists, 171
 The Psychiatrist, 229
 The Psychical Correlation of Religious Emotion and Sexual Desire, Weir, Jr., 227
 The Refraction of the Eye, Hart-ridge, 283
 Retinoscopy (or Shadow Test) in the Determination of Refraction at One Metre Distance with the Plane Mirror, Thorington, 59
 Statistique des Operations Pratiquées au Mans, Delagénère, 287
 The St. Louis Medical Gazette, 61
 Surgery of the Lung, Murphy, 342
 Surgical Affections of Trunk, Pollaillon, 330
 System of Diseases of the Eye, Morris and Oliver, 113
 A Text-Book of Materia Medica, Therapeutics and Pharmacology, Butler, 282
 Text-Book on Diseases of the Kidneys and Genito-Urinary Organs, Fürbringer, 116
 Text-Book of Pathology, Stengel, 334
 Transactions of the Medical Society of the District of Columbia, 61
 Transactions of the Medical Society of the State of New York, 229

INDEX

v

Book Reviews—Continued.

- Transactions of the Southern Surgical and Gynecological Association, 57
- The Treatment of Skin Cancer, Gottheil, 285
- A Text-Book Upon the Pathogenic Bacteria, McFarland, 226
- Ueber Spermatocystitis Gonorrhoeica, Collan, 227
- Un Cas de Pseudo-Hermaphroditisme, 287
- Veneral Diseases, A Manual of, Hayden, 332
- Yellow Fever, Chassaingnac, 59

C

- Car Sickness, 189
- Caseinogen in Milk, Physio-Chemical State of, 314
- Catarrhal Jaundice in Children, 84
- Chemical Relations of Remedies in Scientific Therapeutics, 311
- Cincinnati Obstetrical Society, The, 222
- Clinical Study of Interstitial Nephritis, with Methods of Diagnosis, 190
- Color of Negro Infants, The, 77
- Conclusive Test for Human Semen, A, 196
- Coca Erythroxylin, 82
- Congenital Absence of Both Patellæ, 206
- Congenital Absence of Clavicles, 206
- Congenital Displacement of the Kidney, 219
- Congenital Separation, Complete, of all the Bones of the Cranium, 326
- Conservatism in the Use of the Stomach Tube, 78
- Contagiousness of Leprosy, On the, 38
- Contagiousness of Leprosy, The, 48
- Consequence of the War, A, 145
- Course and Management of Complicating Myocarditis, The, 103
- Cystitis and Urine Infection, 211

D

- Dangers of Blisters, 150
- Dangers of Hypnotism, 256
- Deadly Parallel Column, The, 251
- Deafness and Nasal Diseases, 322
- Death Following Forceful Reduction of Deformity in Spondylitis, 206
- Death of Dr. William Pepper, 173

- Descent and Variation of the Bacillus, with Remarks, Albert S. Ashmead, 9
- Development of Serum Therapy, The, 134
- Diabetes Mellitus at the Massachusetts General Hospital, from 1824 to 1898; A Study of the Medical Records, 100
- Diabetic Gangrene, 107
- Differential Diagnosis, The, Between Dengue and Yellow Fever, 99
- Differentiation, The, of the Cardiac Incompetency of Intrinsic Heart Disease and of Chronic Nephritis, 105
- Diphtheria, 162
- Discussion on Perforation Peritonitis, 93
- Diseases of the Mastoid, Their Course and Treatment, 211
- Doctor's Outing, The, 76
- Do not Ligate the Funis, 301

E

- Eczema by Picric Acid, Treatment of, 207
- Electrical Treatment of Tic Douloureux, The, 271
- Epilepsy, A Consideration of Four Cases of, 110
- Esophagotomy Practiced on a Child in Order to Extract a Coin Which Had Been Located by the Radiograph, 160
- Ether Narcosis, 302
- Eulogy, An, 72
- Examination of Military Surgeons, 62
- Exhibition of Rupture to Jury, 328
- Exophthalmic Goitre, The Surgical Treatment of, 53
- Experimental Researches on the Effects of Different Anesthetics, 193
- Eye-Strain, 326

F

- Fashion and its End, 296
- Febrile Conditions in Children, 151
- Ferratin in Anemia, with Report of a Case, 151
- Ferratin the Only Available True Organic Iron Compound, 50
- Ferratin, the Therapeutic Value of, Hugo Wiener, 36
- Few Facts in Regard to Syphilis, A, 55
- Fibrinous Rhinitis, A Case of, 213

Mississippi Valley Medical Association, 296

Forty-Six Cases of Placenta Previa, 153

Fossil Bacteria, 192

Fracture of the Base of the Skull, 159

Fracture of the Penis, 270

G

Gastric Erosion, 187

Gastro-Enterostomy, A New Way of Performing, 156

Gastro-Enterectomy in Non-Cancerous Affections of the Stomach, 203

Generous Act, A, 75

Gonorrhea in Women, Treatment of, 161

Gonorrheal Infection by Flies, 196

Gonorrheal Urethritis, the Treatment of by Means of Protargol, J. Barozzi, 141

Good Retort, A, 35

Grindelia Robusta in Cardiac and Pulmonary Affections, 312

Gunshot Fracture of the Humerus, 87

Gunshot Wounds, 201

H

Hay Fever, For, 80

Headaches from Auto-Intoxication, 273

Healing of Wounds in the Negro Races, on the, 267

Health Officer Not Entitled to Extra Compensation, 220

Heredity, 310

High Specific Gravity of Urine, 320

Hypodermic Injections of Alcohol and Tincture of Belladonna in the Treatment of Apparent Death in the New-Born, 197

Hypertrichosis and a Uterus Duplex, 240

Hypnosis in Pregnancy and Labor, 156

I

Individual Freedom the Rule at Vassar, 37

Influence of Sun light on Tuberculous Sputum in Denver. The, 101

Importance of Expert Aid in Legislation, The, 278

Improved Test for Albumen in Urine, 83

Increase of Intracranial Pressure in Head Injuries, 83

Influence of Coitus with White Men in Inducing Sterility in Aboriginal Women, 316

Injuries to the Fingers, 199

Inoperable Sarcoma, The Treatment of, 188

Inoperative Sarcoma by Coley's Fluid. Treatment of, 148

Insomnia of Insane, Action of Lactophenin on, 324

Interdependence, The, of Healthy Bodies and Healthy Brains, Elmer Lee, 243

Is there Room for Improvement in Our Present Mode of Clinical Instruction in Midwifery? 264

J

Justice, 46

K

Knee-Jerks in Diabetes Mellitus, 79

Kyphosis, Treatment of by Calot's Method, 88

L

Lactophenin, 80

Lactophenin in Chorea Minor, 323

Lactophenin as a Hypnotic, 192

Lactophenin in Acute Articular Rheumatism, 257

Late Advance in Organo-Therapy, A, 81

Lee, Elmer, The Interdependence of Healthy Bodies and Healthy Brains, 243

Legal Restraint of Marriages, 277

Leprosy, Dr. Magalhães's Views on, rejected by some South American Authorities, by Albert S. Ashmead, 297

Leprosy in the Fiji Islands, Treatment of, 269

Leprosy is Incurable, Mr. Unna and His Great Successes to the Contrary Notwithstanding, 181

Lesson Taught by the War, A, 183

Leucocytosis in Children, 3 3

Leucorrhœa, 313

Life Expectancy in Syphilitics, 207

Liquid Air Cocktails, 224

Lupus Erythematosus. The Nature and Treatment of, 270

M

Manley, Thos., A Brief Consideration of the Shoulder-Girdle, 233

Marriages Between Cousins, 277

Medical Barbarisms, 176

Medical Point of View, The, 250
 Medical Society Meetings, 185
 Mental Capacity in Will Making, 327
 Merited Honors, 249
 Michael Angelo a Physician, 221
 Microbe of Sauerkraut, The, 155
 Mirror Speech, 55
 Mississippi Valley Medical Association, 172, 231, 296
 Missouri State Medical Association, 35, 48
 Mountain Sickness Caused by Fatigue, 186
 Movable Kidney, How to Diagnose a, 255
 Mydrin, the New Mydriatic, 219

N

National Pure Food and Drug Congress, 343
 Nervousness, 301
 Nervous System, Action of Diphtheria Toxins on, 323
 Nervous System and Its Diseases, The, by Wm. Henry. M.D., 73
 New Title Conferred on Lord Lister, 300
 New York Post-Graduate Medical School, 147
 New York vs. Massachusetts Troops in the Matter of Beans, 140
 New Sedative in Whooping Cough, A, 52
 Non-ligation of Umbilical Cord, 85
 Notification of Venereal Diseases in Prussia, 288

O

Occasional Periscope of Antenatal Pathology, J. W. Ballantyne, 240
 Offended Osteopath, An, 288
 Open Challenge, An, 304
 Open Letter to Dr. Impey, An, 42
 Operations on Albuminurics, 202
 Optic Neuritis in Typhoid Fever, 325
 Origin of Spectacles, 325
 Osteomata of Frontal Sinuses, 322
 Other Kidney, The, in Contemplated Nephrectomy, 86
 Ovarian Cyst in a New-Born Infant, 240
 Ovarian Neuralgia, 192

P

Pan-American Medical Congress, 344
 Pathology in Its Relation to Orthopedic Surgery, 205

Pathology of Antenatal Life, The, J. W. Ballantyne, 18
 Parasite of Trachoma, The, 219
 Pemphigus Foliaceus, Remarks on, Charles Szadek, 121
 Penis of Old Men, Pathological Changes in, 320
 Penis Syphilides, 319
 Persistent Hymen, A, Causes an Error in Diagnosis, 241
 Phagedenic Ulcers, The, of Hot Countries, 158
 Phonographic Record of the Cardiac Sounds, A, 179
 Photo-Therapeutics of Lupus Vulgaris, 209
 Physiology of the Liver, The, and the Role it Plays in Digestion and Nutrition, 263
 Placenta Previa, with Special Reference to Treatment, 198
 Poisoning by Quinine, 193
 Pneumonia in Amputation of Breast, 87
 Pott's Fracture, 267
 Practical Use of the Endoscope, 160
 Pregnancy After Hysteropexy, 157
 Prevention of Uterine Disease, 51
 Primary Tuberculosis of the Rectum, 163
 Prize, The First Nathan Lewis Hatfield, for Original Research in Medicine, 17
 Prolonged Diphtheria, 256
 Pure Food and Drug Congress, 306
 Pus in the Pelvis and the Vaginal Route, 315

Q

Question of Operative Interference in Recent Simple Fractures of the Patella, The, 159

R

Railway Spine, 215
 Rapid Cure of Sciatia, A, 216
 Rare Cases of Arythmia, 110
 Rash of Varicella, 316
 Renal Calculus, 53
 Renal Hemophilia, 271
 Rhinolith or Nasal Calculus, 273
 Ricketts, Edwin. Vaginal Hysterectomy for Double Infantile Uterus, 180
 Ringworm, Treatment of, 319
 Rötheln, On, 265
 Routine Treatment of Syphilis, The, 90
 Rules for Orthopedic Practice, 56

S

- Salicylic Acid in Pneumonia, 191
 Senile Uterine Catarrh, 199
 Sero-Therapeutic Method, The, of Dr. Carrasquilla in the Treatment of Leprosy, 248
 Shoulder-Girdle, A Brief Consideration on the, Its Structure and Lesions Resulting from Violence, Thos. H. Manley, 233
 Snowslide an Inevitable Catastrophe, 328
 Some Interesting Cases of Brain Injury, 217
 Sign of Grave Facial Paralysis, A, 150
 Some Observations on Brain Anatomy and Brain Tumors, 261
 Some Observations on the Use of Aqueous Extract of Suprarenal Glands, Locally, in the Upper Air Passages, 187
 Some of the Causes of Lateral Curvature of the Spine, 88
 Spinal Caries, A Case of, 87
 Sternberg, Carl, The Therapeutic Value of Lactophenin, 65
 Stretching the Bladder by Hydraulic Pressure, 320
 Suit for Transplantation of Skin, 221
 Suppurative Middle Ear Disease, Cause of Failure to Cure, 321
 Surgical Convalescence, 265
 Supra-Orbital Neuralgia, 90, 272
 Supravaginal Amputation of a Pregnant Myomatous Uterus, 85
 Surgery of the Prepuce and Meatus, The, 90
 Surgical Interference in Cerebral Disease, 216
 Syphilis as a Cause of Abortion, 84
 Syphilitic Ulcer of the Stomach, 268
 Szadek, Charles, Remarks on Pemphigus Foliaceus, 121

T

- Therapeutic Value, The, of Lactophenin, Carl Sternberg, 65
 "The Ship's Doctor," 119

- The Tenth Annual Meeting of the Tri-State Medical Society of Alabama, Georgia and Tennessee, 186
 Tinea Versicolor, 318
 To Determine the Thickness of the Pad Used in Pes Planus 206
 Tubal Malformations as a Cause of Extrauterine Pregnancy, 242
 Tuberculous Laryngitis, 91
 Two Rare Diseases of the Skin, 268
 Typhoid Fever. Some Cases of, Treated with Viskolein, by R. F. Amyx, 289

U

- Unusual Form of Meckel's Diverticulum, 220
 Unwarranted Arrest, 308
 Use of Iron Subcutaneously, 312
 Use of Iron and Opium, The, in Bright's Disease, 109
 Uterus Bipartitus as the Cause of an Error in Diagnosis, 241

V

- Vaginal Hysterectomy for Double Infantile Uterus, Edwin Ricketts, 180
 Very Small Effusions into the Knee Joint, 89

W

- Wet Dressings, 204
 When May the Subjects of Gonorrhea be Deemed Cured? 209
 When May Women with Heart Disease Marry? 49
 Wiener, Hugo, The Therapeutic Value of Ferratin, 36

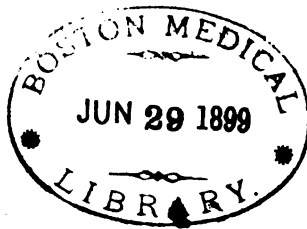
X

- Xanthoma, Treatment of, 318

Z

- Zoster, A Case of Bilateral, 208

4979



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ORIGINAL COMMUNICATIONS.

DESCENT AND VARIATION OF THE BACILLUS, WITH REMARKS.*

BY ALBERT S. ASHMEAD, M.D., OF NEW YORK.
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Leprosy is supposed to have originated in Central Africa. This is a geographical origin; and has, of course, no intimate relation to a causal origin, which must lie in the conditions of life at some early period of man's existence. As man develops, new diseases originate in accordance with successive natural changes in his life. A microbe may exist in the human frame at a certain period and be entirely harmless; the changed conditions may change him into a toxic factor. From a benign dweller in the human tissue, he becomes a famous bacillus—a thorn in the flesh; the satellite and companion if not the primal cause of disease. He has not changed; but circumstances have exalted him to a position of which in his humble beginning he did not dream. "*Cœlum non animum mutavit.*" And now, when the accurate eye of a Hansen has found him, he has altered his way in such a baneful direction.

There is thus no difference between the study of the bacillus and the study of man. If the latter has come from a lower be-

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ing, why not the bacillus? If there have been varieties of species in other organic beings, why should not the bacillus have gone through similar transformations? Thus we are led to recognize between all the bacilli the same general relation which exists between all other living—that is, animal and vegetal—species. The preference of a particular bacillus for a certain situation in the body, or his peculiarity of colorability, or his gregariousness, or individuality, or his preference for light or dark places, does not prove that we have to do with essentially different species.

We may also assume that all bacillary diseases have something in common, and differ in a manner corresponding to the difference in habits of the bacilli.

Therefore no one can trace the origin of any germ disease any more than he can trace back through the centuries the origin of any particular variation of the original bacillus.

Here are a few examples of change produced by certain conditions of life. The Aymaras and Tucas of Peru, living in close association in their journeys, copulating with the female llama, contracted a disease, supposed to be syphilis, transmitted ever afterwards in America from man to man.

Chinamen, living in close proximity to rats, and feeding on them, contract bubonic plague, a disease peculiar to the rat family. This also is eventually transmitted from man to man.

Persons addicted to uncooked pork contract trichinosis.

In mosquito countries chyluria is common among the inhabitants, and the *filaria sanguinis hominis* is transmitted through intermediary host function.

It may be assumed that many bacilli dwell in the human body under circumstances unfavorable to colonization or activity.

We know that the pneumococcus, the diphtheria bacillus, even the lepra bacillus are present very often without the disease with which they are identified. Natural resistance in the organism may prevent the multiplication necessary to the development of the disease. One bacillus does not make a disease.

Emigration of the bacilli very often produces the phenomena of the disease. When disturbed in one locality of the human frame they emigrate to another, usually deeper-seated, part, to multiply there undisturbed.

It matters not whether one kind of bacillus produces the inflammation or another kind, the seat chosen by the bacilli gives the disease its specific character.

The absorption of the products of the bacillus, if these are toxic, and the phenomena of which they are the cause, constitute a certain disease.

There is nothing to show that the toxine engendered by the bacillus is not in itself neutral, being ready under given circumstances to produce disease, under others to be harmless, and being, at the bottom, intended only for self-preservation.

Under certain circumstances the toxine is secreted, or is toxic; under others it remains in abeyance, or is not toxic.

We know that a disease, after it has ravaged a race for a certain length of time, has lost some of its virulence; four hundred years of syphilis in Europe leave the disease in a different degree from what it is after thirteen hundred years in Japan. An European inoculated with the syphilis of Japan has a much more violent attack than the Japanese inoculated with the same. Either the latter have acquired a measure of immunity, or the germ of the disease has lost its power on Japanese blood. Immunity from a disease may mean only the presence of conditions inimical to the bacillus; the latter may be inoculated in an immune person, yet does not develop—at any rate, does not produce its malignant effect; changed conditions have altered his habits.

In its development, mankind formed different strata, in some of which the original disposition—to leprosy, for instance—has remained as nearly as possible unchanged. In others, a medium has been formed in which leprosy cannot readily develop; that is immunity, if you will call it so.

Among the classes backward in development, leprosy still preserves its sway. In Japan the population may be divided into three classes. In the rich, noble class, almost pure Indonesian blood, inbreeding of four families for twelve hundred years, leprosy is very rare. In the great middle class it is more frequent. Among the outcasts, the Eta, the Negroid element, it is rampant.

In the first class tuberculosis makes numerous victims, more than in either of the other classes; in the second class syphilis is the prevailing scourge, and has been so for thirteen hundred years; the third, as before said, is a prey to leprosy. These three different bacilli seem to have picked out their ground during the thirteen hundred years in which the closely hemmed in and isolated empire has been preyed upon by them.

By changing the environment congenial to the microbe one can change its characteristics.

A change in the condition of the lower class of Japan to a higher plane would probably produce a corresponding change in the bacillus.

Two factors are necessary for the prevention of leprosy: obstacles to inoculation—that is, isolation; and improvement of the human class preferred by the bacillus.

The Ainos of Japan, who have been always isolated from the Japanese, have never contracted leprosy. (Yet they are the greatest salt-eaters in the world.) This might be considered as an *isolation of the healthy*. It is our desire to have the whole human race isolated in the Aino manner.

We do not know, of course, whether the Ainos have ever been inoculated. One individual would have acted as a nucleus for the disease. It is very probable that in the course of twenty centuries one or more Ainos *were* inoculated. However well isolated they were, although shunned by the Japanese as dogs, because of their hairiness, as the country was after all a leper centre, some individuals were contaminated. Some poor Aino must have at some time joined the company of some outcast in the Eta villages. The inoculation is certainly very probable, and the absence of the disease among the Ainos is certain. We assume, therefore, that the Aino has immunity, or that the bacillus does not prosper in Aino flesh. Now, here is a curious remark. There has always been a suspicion that fish diet has something to do with leprosy. Now the leprous Japanese eats a great deal of fish, and no meat; while the Aino feeds on bear meats and is not very fond of fish. He is, in fact, a nomad, consequently a hunter.

Here is another fact relating to the Ainos, which might seem suggestive. The Aino is hairy, white-skinned; the Japanese is dark-skinned, and practically glabrous. Now, if it is true that the microbe is partial to sunlit places he will be dermatologically better off in the body of the Japanese than in that of the Aino. The Aino may have got his share of bacilli in his relations with the invading Japanese; but the bacilli, not feeling at home under his white, hirsute integument, refrained from any steps at naturalization.

The proverb says that it is not enough to bring the horse to

the water, he must be persuaded to drink. The inoculation of the bacillus does not constitute the disease; the bacillus must make up his mind that he has come to stay.

From all we have said it may be assumed that under certain circumstances the bacillus is a harmless parasite, and that the conditions changing he produces the phenomena of disease.

Inoculation of a bacillus in a virgin soil may be very virulent; such was the syphilis in the fifteenth century in Europe; in fact this disease had then an epidemic character, which it has since lost. The lepra bacillus is doing now among the Kanakas the same destructive work which the syphilis bacillus performed in Europe in the fifteenth century.

The inoculated race will acquire as the years go by a certain degree of immunity, provided the conditions of life, which have been favorable to the development of the disease, improve; but if these conditions remain stationary, or become worse, the virulence will continue, or will increase, and even eventually destroy the race.

We may, therefore, assume that some bacilli are factors in the evolution of a race, as they destroy the untoward elements.

Among degenerate races, or classes—negroes, for example—contagion is very ready and swift; multiplication of bacilli follows the inoculation rapidly. The nine millions of negroes of North America are not as prone to leprosy as the more degenerate negroes of South America, because their conditions of life are more favorable. The negroes of the tropics live closer to nature, in more immediate contact with her, exposing more of their skin to the air, to insects, etc., than our North American blacks, and therefore are more prone to infection.

We may assume that there are certain laws governing the development and migration of bacilli. For instance, operate on a tuberculous fistula in ano, the bacilli migrate and develop at once into acute phthisis pulmonalis, or tubercular meningitis. There must be a reason for the selection of one of these two places, some law that presides over the migration or development of virulence of the tubercle bacilli; for why should they not scatter and colonize at random.

We know that the *filaria sanguinis hominis* has set rules governing his life and his feeding; at night-time it is found in the blood-current, in the day-time it is absent. May not our bacillus also obey some rules of this nature?

Certain bacilli have diminished in virulence as the human race has advanced in civilization. This diminished multiplication, or destructiveness, is, of course, founded on some change in the nature of the microbe or in its habits. These variations are in direct ratio with the changes occurring in the human race.

We assume that at the origin of bacillary things there was only one bacillus, and that all the various microbes we find in activity at the present time, one presiding over this disease, the other over another, are only variations of a common progeny. Many of these variations have produced their diseases, and have died out with their pathological products. The pest of the Middle Ages has thus vanished. New diseases have developed, and will continue to develop under changed conditions, and with changed bacilli.

Extract from Dr. Hansen's remarks at the Berlin Lepra Conference. (Mittheilungen und Verhandlungen der internationalen Wissenschaftlichen Lepra Conferenz zu Berlin im October, 1897. Vol. II., page 44).

"As to the fancies of historical development of Dr. Ashmead, I will not lose one word; it is not worth while. I am only interested in the statement he makes about Japan, and I should like to ask our Japanese colleagues whether these explanations are correct. I should certainly explain the matter otherwise than Dr. Ashmead." (Translated from German).

Dr. Hansen says he will ask his Japanese colleagues whether the explanations of Dr. Ashmead are correct. He thinks evidently that he has shown a rather cutting contempt of Dr. Ashmead's opinions by wishing them to be verified by the Japanese *authorities*. But all the doctors and men of science who have lived and worked for some time in Japan will smile, not at Dr. Ashmead's discomfiture, but at Dr. Hansen's extreme naïveté. (A. S. A.).

NEW YORK, Feb. 12, 1898.

DR. KANEHIRO TAKAKI, President of the Sei I Kwai (Medical Society), Tokio, Japan.

Dear Dr. Takaki—In the Berlin Lepra Conference Dr. Hansen, referring to my paper published in the first Volume of Transactions (*Descent and Variation of the Bacillus*), says he would like to ask his Japanese colleagues whether Dr. Ashmead's explanations about certain Japanese facts are correct. Here is the passage to which I think he refers: "In its

development mankind formed different strata, in some of which the original disposition to leprosy, for instance, has remained as nearly as possible unchanged. In others a medium has been formed, in which leprosy cannot readily develop; that is immunity, if you will call it so. Among the classes backward in development, leprosy still preserves its sway. In Japan, the population may be divided into three classes. In the rich, noble class, almost pure Indonesian blood, inbreeding of four families for 1200 years, leprosy is very rare. In the great middle class it is more frequent. Among the outcasts, the Eta, the negroid element, it is rampant.

"In the first class tuberculosis makes numerous victims, more than in either of the other classes; in the second class, syphilis is the prevailing scourge, and has been so for 1300 years; the third, as before said, is a prey to leprosy.

"These three different bacilli seem to have picked out their ground during the 1300 years in which the closely-hemmed-in and isolated empire has been preyed upon by them.

"By changing the environment congenial to the microbe one can change his characteristics. A change in the conditions of the lower class of Japan to the higher plane would probably produce a corresponding change in the bacillus.

"Two factors are necessary for the prevention of leprosy: obstacles to inoculation, that is isolation, and improvement of the human class preferred by the bacillus.

"The Ainos of Japan, who have been always isolated from the Japanese, have never contracted leprosy (yet they are the greatest salt eaters in the world). This might be considered as an isolation of the healthy. It is our desire to have the whole human race isolated in the Aino manner.

"We do not know, of course, whether the Ainos have ever been inoculated. One individual would have acted as a nucleus for the disease. It is very probable that in the course of twenty centuries one or more Ainos were inoculated. However well isolated they were, although shunned by the Japanese as dogs because of their hairiness, as the country was after all a leper centre, some individuals were contaminated. Some poor Aino must have at some time joined the company of some outcasts in the Eta villages. The inoculation is certainly very probable; and the absence of the disease among the Ainos is certain. We as-

sume, therefore, that the Aino has immunity, or that the bacillus does not prosper in Aino flesh. Now, here is a curious remark: There has always been a suspicion that fish diet has something to do with leprosy. Now the leprous Japanese eats a great deal of fish, and no meat; while the Aino feeds on bear meat, and is not very fond of fish; he is, in fact, a nomad, consequently a hunter.

“Here is another fact relating to the Ainos which might seem suggestive. The Aino is hairy, white-skinned; the Japanese is dark-skinned, and practically glabrous. Now, if it is true that the microbe is partial to sunlit places, he will be dermatologically better off in the body of the Japanese than in that of an Aino. The Aino may have got his share of bacilli in his relations with the invading Japanese; but the bacilli, not feeling at home under his white, hirsute integument, refrained from any steps at naturalization.

“The proverb says: ‘It is not enough to bring the horse to the water; he must be persuaded to drink.’ The inoculation of the bacillus does not constitute the disease; the bacillus must make up his mind that he has come to stay.

“From all we have said, it may be assumed that under certain circumstances the bacillus is a harmless parasite; and that, the conditions changing, he produces the phenomena of disease.

“Inoculation of a bacillus in a virgin soil may be very virulent. Such was syphilis in the 15th century in Europe; in fact, this disease had then an epidemic character, which it has since lost. The leper bacillus is doing now among the Kanakas the same destructive work which the syphilis bacillus performed in Europe in the 15th century.

“The inoculated race will acquire, as the years go by, a certain degree of immunity, provided the conditions of life which have been favorable to the development of the disease improve; but if these conditions remain stationary, or become worse, the virulence will continue, or will increase, and even eventually destroy the race.

“We may, therefore, assume that some bacilli are factors in the evolution of a race, as they destroy the untoward elements.”

Will you please inform me whether Dr. Hansen obtained this answer from you or any of his Japanese colleagues present in Berlin.

I should like to know, even if you have not been asked, what you would have answered if you had been asked.

I send you, as President of the Sei-I-Kwai, a manuscript for publication, as you see fit, which will explain my position on the leprosy question as opposed to that of Dr. Hansen (Norwegian Leper-Law and International Leper-Law).

The whole matter will come up for revision in 1900, when Dr. Besmier calls a new Congress in Paris.

Very truly yours, ALBERT S. ASHMEAD.

The First Nathan Lewis Hatfield Prize for Original Research in Medicine.—The College of Physicians of Philadelphia announces through its committee that the sum of \$500 will be awarded to the author of the best essay in competition for the above prize.

Subject: "A Pathological and Clinical Study of the Thymus Gland and Its Relations."

Essays must be submitted on or before January 1, 1900.

Each essay must be typewritten, designated by a motto or device, and accompanied by a sealed envelope bearing the same motto or device and containing the name and address of the author. No envelope will be opened except that which accompanies the successful essay.

The committee will return the unsuccessful essays if reclaimed by their respective writers or their agents within one year.

The committee reserve the right not to make an award if no essay submitted is considered worthy of the prize.

The treatment of the subject must, in accordance with the conditions of the trust, embody original observations or researches or original deductions.

The competition shall be open to members of the medical profession and men of science in the United States.

The original of the successful essay shall become the property of the College of Physicians.

The trustees shall have full control of the publication of the memorial essay. It shall be published in the transactions of the college, and also when expedient as a separate issue.

Address

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THE PATHOLOGY OF ANTENATAL LIFE.*

BY J. W. BALLANTYNE, M.D., F.R.C.P.E., F.R.S.E.,

Lecturer on Midwifery, Minto House, Edinburgh: Examiner in Midwifery, University of Aberdeen.

Gentlemen—It is an inadequate and inaccurate view of the life of the individual which regards it as beginning with birth and ending with death. Theology teaches us that death does not end all; and no obstetrician can be in doubt that birth does not begin all. Birth does not mark a beginning, but a stage in life's progress. Birth is in one sense a beginning; it is the beginning of post-natal life; but the very words used imply that there has been an ante-natal life. Further, the post-natal is not independent of the ante-natal; on the contrary, it is largely the direct continuation and outcome of it. The life is unchanged, but the environment has been altered; birth marks the change from surroundings which are intra-uterine to those that are extra-uterine. The transition is abrupt and the surroundings are very unlike, nevertheless the life is continuous.

The Periods of Life—Post-Natal.—By popular custom and with the consent of science, extra-uterine or post-natal life has been divided into periods. There is the period of old age, with its terminus, death; there is the time of middle or adult life; there is youth; and there is childhood or infancy. Even in a strictly scientific sense, however, death is not really the terminus of life, for in many cases before that event has occurred the individual has thrown off a vital cell which impregnating another unit of life, or being impregnated by it, has carried on the existence of both. Each individual organism consists then of a perishable part, which in point of size bulks largely, and of an imperishable part, microscopic in size, but intensely vital in property. The imperishable part modern science has called the germ-plasm, and its imperishability is denominated its continuity. The same idea, however, was present in the mind of an exact thinker and a judicial writer of the old time when he said, speaking of Levi, that he was yet in the loins of his father (great-grandfather) Abraham when Melchisedec met him. Adult life is the epoch most largely concerned in reproduction; in infancy and childhood the most noteworthy incident is steady and

*An address delivered before the Glasgow Obstetrical and Gynecological Society.

continuous growth of the body; while in youth it is more especially the growth of one set of organs, the genital, that is conspicuous. At the same time while post-natal life may be divided into these periods, they must not be regarded as well defined or as absolutely distinct from each other. There are normal limits within which adult life may be prolonged or childhood shortened, and in a certain sense one part of the individual may be in one period and another part in another. Without crossing over the boundary into pathology, it may be quite legitimate to describe a man as having the brain of a youth or of a child.

Extra-uterine is linked to intra-uterine life by the short period known as that of the new-born infant. Nevertheless, although it only lasts for about a month, most important physiological changes are going on in it. It is a time of metamorphosis; organs which during intra-uterine life have had little or no call put upon them are suddenly brought into functional activity, while many of those which have been physiologically active in fetal life begin to atrophy from disuse. The organism is adapting itself to its new environment.

Ante-Natal Life—Physiology.—Like post-natal life, the antenatal existence of the individual may be marked off into periods. These are the fetal, the embryonic, and the germinal epochs. During the first of these, the fetal period, the organism shows its vitality chiefly by growth along lines which have been already definitely laid down. In this respect it resembles the post-natal periods of infancy and youth. It is true that the intra-uterine environment has very distinctive and peculiar characters (the unborn infant exists in a fluid medium of practically constant temperature; it is protected to a large extent from traumatism by the maternal structures, and it is shut in from the light); further, the fetus has several of its organs almost inactive, and its most important and most active organ, the placenta, is extra-corporeal; nevertheless, the chief phenomenon of fetal life is the growth, rapid and continuous, along lines already indicated. Within seven months, which is the length, roughly speaking, of fetal life in the human subject, the organism increases from a structure one inch in length to one measuring twenty inches, and its increase in weight is proportional.

During embryonic life, which may be regarded as beginning with the differentiation of the three layers of the blastoderm

and ending about the end of the second month, a very different process is going on. There is growth as in the fetal period; it is not, however, simple increase, but evolution or development that is the striking feature of the life of the embryo. The lines along which future growth is to take place are nearly all laid down in the embryonic period. The physiology of the embryo is development; that of the fetus is growth. As in the history of the rise of a great modern city there is record of a stage in which the main avenues of traffic are sketched out and natural obstacles overcome or utilized, to be followed by a period during which growth goes on along the lines of the plan, so in the story of ante-natal life there is the embryonic period, in which the cellular elements are arranged in groups to form organs, to be followed by the fetal, in which these organs simply increase in size, and by their activity lead to the growth of the whole organism.

About germinal life in the human subject we know little, but it may be regarded as a period which ends in the mysterious phenomenon of germ and sperm maturation, of the expulsion of the polar globules from the ovum, and of the atrophy of the female element of the sperm-cell, and of the impregnation of the ovum by the spermatozoon, with the resulting formation of the morula mass. Prior to impregnation the ova and spermatozoa have simply led the life of specialized cells in the body, the former in the female, the latter in the male. Doubtless they have been impressed to a certain extent with the individuality of the organism, with what may be called the peculiarities of its vitality. Further, these cells are the descendants of others which have in their turn been component parts of other organisms which have also had their individuality. So in the earliest epoch of ante-natal life, just as in the latter epoch of post-natal existence, we find ourselves confronted by the continuity of vital action; the individual is the link which enables the vitality to be continuous.

Before passing to the consideration of pathology in these relations, I must point out that, whilst ante-natal life is thus divisible into three periods, these are not sharply marked off from one another any more than the epochs of post-natal life. One part of the organism may be yet in the embryonic stage while the others are in the fetal phase. An example of this is met with in the slower evolution of the limbs as compared with the trunk of

the body and head, and probably no two parts pass out of the embryonic into the fetal condition at just the same time. To revert to the comparison I have already instituted, the progress of a city is not equal throughout—one part, *e.g.*, the suburbs, may be little more than planned when another, *e.g.*, the center, is already built. Just as the first month of extra-uterine life, more than any other, is a time of metamorphosis and of transition, so the third month of intra-uterine life, more than any other, is characterized by readjustment and by change. Most of the organs pass at this time from the embryonic into the fetal state, just as in the first month of life most of them again pass from the fetal into the infantile condition. The bearing which this form of transition from one period to another has upon pathology will be soon made apparent.

Such, then, is a sketch of the periods into which ante-natal life may be divided—the fetal, the embryonic, and the germinal; but so far I have made reference only to the physiology of these epochs, and not at all to their pathology. I have considered only the normal at first in order to simplify, as far as possible, the whole problem. Now, in the light of what has been already stated, we may with more profit discuss the incidence of the morbid. We shall find that the pathology of ante-natal life is closely bound up with its physiology.

Ante-Natal Pathology.—Post-natal and ante-natal life have this, at least, in common—that they are both subject to disease and death. As a French writer (Vernet) has expressed it: “L’œuf fécondé jouit de la vie, sujet par conséquent aux maladies, à la mort;” and I may roughly cast the same idea into verse as follows:

The egg, impregnated, with vital ardor glows,
Subject thereby to maladies and death’s destructive throes.

In the very spring of life there is the possibility of death; the ante-natal death-rate must be very high, and, I doubt not, that all estimates which have been formed of it fall below the reality. Short of actual death, however, there is pathological change, and there is a morbid anatomy of intra-uterine life which has not up to the present time received the attention that it demands in view of the far-reaching effects it has on post-natal life. The pathology of ante-natal life is a subject which has been comparatively little studied; and the cause of this neglect has been not

single, but complex. The inherent difficulty of the research, the practical impossibility of exact diagnosis, the discouraging results of attempts at ante-natal therapeutics, the delayed progress of the study of ante-natal physiology, and the conflicting views regarding human embryology, have all played a part in discouraging investigations; but probably the most potent factor in delay has been the simple circumstance that the subject dealt with *ante-natal* affairs. The difficulties were not insurmountable; but investigators have been held back by the wide-spread belief that (so to say) the game was not worth the candle. The mercantile value, if I may so put it, of fetal life has been placed very low compared with that of the adult or of the child. In no country in the world save that in which the population is stationary or diminishing does the necessity of conserving and preserving fetal life obtrude itself upon the notice of the political economist or of the physician. The specialist in ante-natal disease, even in these days of specialism, is not wanted. Beyond all these reasons which have led the student to neglect the pathology of ante-natal life, I believe there lies yet another. There is, I think, a very prevalent notion that ante-natal pathology is not subject to the same laws as post-natal; that it cannot be regarded as similar to it; that it is, in fact, something apart, something mysterious. What I wish to try to show in this address is, that in all probability *the causes of morbid processes are the same in post-natal and in ante-natal life*. That the effects produced by these causes differ markedly there is no gainsaying; but the differences are to be regarded as due to altered environmental conditions and to the peculiarities in the structure of the organism acted upon.

I do not suppose that any one doubts that the same etiological factors in pathology are present in all the periods into which extra-uterine or post-natal life has been divided. The young, the aged, and the middle-aged, are alike subject to the influence of injuries, of poisons, of microbes, and of parasites. It is true that at certain ages the individual is more liable to certain forms of disease, and more or less free from others. It is also to a small extent true that some diseases show certain slight differences in their manifestations according to the age of the person attacked by them—an example of this is found by contrasting the rheumatism of middle life with that of childhood; but

manifestly these differences are not due to variations in the nature of the causes acting, but to alterations in the structure of the parts acted upon and in the environmental conditions. Peculiarities of this kind are specially evident in the diseases of the new-born infant, some of which have almost a pathology of their own, and it is precisely during this short period in extra-uterine life that the organization of the body differs most from what it afterwards becomes. Such maladies as jaundice of the new-born, scleroma neonatorum, trismus neonatorum, and Winckel's disease, owe their peculiar characters not to anything unusual in the causes which produce them; but rather to the fact that the causes are acting upon organs and tissues which are in a state of transition between the fetal and the infantile stage. It is probably partly on this account also that these causes produce such fatal results, for, as every one knows, the mortality in the first days of life is truly appalling. Certainly the change from an intra-uterine to an extra-uterine existence must severely try the organism.

Pathology of Fetal Life.—During fetal life, as distinguished from embryonic, the organism is subject to diseases. Morbid causes acting upon the fetus produce diseases in it. More than ten years' study of the problems of ante-natal pathology has led me to the conclusion that the fetus is liable to the same diseases as the infant, the child, and the adult. It enjoys a partial immunity from the attacks of certain parasites which produce skin diseases in extra-uterine life, and it is to some extent protected from external violence by the maternal structures and the liquor amnii. On the other hand, it is apt to be affected with certain maladies in a peculiarly aggravated form, and it is exposed to one gross traumatism, parturition. Nevertheless it is, I believe, true that the morbid causes which act upon the fetus are identical with those which are effective in later life. The peculiarities of fetal maladies are largely due to the peculiarities of fetal environment and of fetal physiology. Some illustrations of this may be given.

Fetal ichthyosis of the grave type is a disease in which the thickening of the epidermis is of so marked a kind that it has on this account been asserted by some that it is not the same malady as the ichthyosis of extra-uterine life. The probable explanation, however, seems to be that the intra-uterine environment

permits the continuance of life with a degree of cutaneous morbid change which would render post-natal existence impossible. As a matter of fact, infants with advanced fetal ichthyosis rarely survive their birth by many hours—the horny epidermic plates surrounding the mouth make suckling impossible, and the interference with the cutaneous functions leads to congestion of the internal organs, and especially to inflammatory states of the lungs and kidneys. Probably also the enormous epidermic proliferation may be connected in some way with the existence of that peculiarly fetal and transient structure, the epitrichium. General fetal dropsy, also, is a disease; or rather a symptom of several diseases, which reaches an altogether unprecedented degree of development *in utero*. With marked and deforming general anasarca and with much fluid in the cavities of the peritoneum, pleura, pericardium, and cerebral ventricles, the fetus is still able to drag on in the uterus an existence which lasts till birth, even until birth at the full time. This peculiarity of fetal diseases I, some years ago, dubbed their “potential mortality.” The fetal environment and mode of life permit the existence of an amount of disease quite incompatible with the maintenance of extra-uterine life—the fetus is potentially dead; it will die as soon as it is born. Further, the fact that certain organs in the fetus are almost or quite quiescent, *e.g.*, the lungs, makes it possible for them to be seriously altered in structure without being affected in function; as soon, however, as birth occurs a sudden call is made upon these organs, and at once their potential morbidity becomes real. Truly, in many cases, it may be said that the cause of death is birth. Many other instances of this peculiarity of fetal disease might be given, such as occurs in fetal ascites, hydronephrosis and cystic kidney, and in fetal endocarditis; but these must suffice.

Fetal maladies differ not only in degree, but also in character from those occurring after birth. Examples of this are found in fetal small-pox and fetal typhoid. At the time of birth the variolous eruption may show itself in the papular, pustular, or cicatricial form, according as the disease had existed a longer or a shorter time before labor supervenes. The face is frequently almost free from eruption; the pustules resemble those met with on mucous surfaces rather than on the skin in extra-uterine life: there is a less degree of suppuration; crusts are seldom formed;

and the resulting cicatrices are feebly marked. These peculiar characters of fetal variola find their explanation in the fact that *in utero* the skin is kept moist by the liquor amnii, and is not under the influence of light and the atmospheric air. In fetal typhoid fever it is rare to find the characteristic intestinal lesions, a circumstance which may be due to the comparatively quiescent condition of the bowel in ante-natal life, or to the infection of the fetus by the way of the placenta, instead of by the mouth and stomach. In post-natal life it is uncommon to meet with cases of typhoid without intestinal lesions, although such do occur; in the ante-natal state it is rare to find cases with them. This leads me to advert for a minute or two to the relation of the placental economy to fetal diseases.

The fact that the unborn infant is brought into intimate and peculiar relations with the chemico-vital processes of the mother by means of the placenta is, at the same time, an advantage and a disadvantage. It is on account of this parasitic dependence that the fetus is able to continue an intra-uterine existence with several of its viscera in a far advanced stage of disease; but it is also on this account that it is exposed to fevers and microbic conditions affecting the mother, and to morbid alterations of her blood. We do not yet fully understand the mechanism which regulates the transmission of diseases from mother to fetus; but it would seem that under apparently similar conditions (*e.g.*, in twins) the infection may or may not pass through the placenta, and it is apparently necessary to believe that hemorrhage in the placenta is not a *sine qua non* in the cases in which the germs or their product traverse the afterbirth. Recent investigations on the structure of the amnion and on the liquor amnii suggest that possibly infection may occasionally find its way from the maternal blood through the amniotic fluid to the mouth and stomach of the fetus. *In utero* also, as in after life, the same law of individuality may hold good which brings it about that a certain percentage of organisms, placed under apparently identical conditions of risk of infection, escapes it. The placenta, therefore, is not an unmixed boon to the fetus; but, further, it may become an immediate and pressing danger. It is, in its fetal portion, an organ of the fetus although an extra-corporeal one; it is also the most vulnerable of the organs with which it is supplied. It results from this that placental lesions very quickly endanger the

life of the unborn; and every one knows the frequency with which such are followed by the premature termination of pregnancy.

What has been said concerning the transmission of diseases through the placenta or liquor amnii to the fetus may be repeated with regard to the passage of poisons, such as lead, arsenic, morphine, and alcohol. Less, however, is known regarding their action in producing fetal diseases; but this much can be affirmed that lead poisoning in the mother in pregnancy may be followed by the birth of an infant with paralytic and other symptoms of saturnism. The experiments of Porak go to show that the placenta may, with certain poisons, do what the liver accomplishes in later life, namely, store them up in its substance. It may thus prevent their passage to the fetus, but, in doing so, the placenta may have its own functions so far interfered with as to lead to abortion or premature labor.

During fetal life, then, the organism is subject, just as it is in later life, to the maladies which are caused by the microbes and their toxins, and by poisons, mineral and vegetable; it may also be affected by diseases which, in the absence of fuller knowledge, we must call idiopathic; and it may be wounded or bruised even inside the maternal protecting structures. Its pathology therefore agrees in its etiology with that of later life, but differs in some of its characters in accordance with the peculiarities of the environment. The fetus also may die *in utero*, and the well-known *post-mortem* changes, macerative in character rather than putrefactive, evidently owe their distinguishing characters to the intra-uterine surroundings which, in the great majority of cases, prevent the access of air to the dead tissues. It has sometimes been affirmed that death *in utero* was unaccompanied by rigor mortis; but I believe that this is not correct, and I have elsewhere* stated my reasons for this belief at considerable length. The rigor mortis which affects the fetus may differ in some of its features from that of the infant, *e.g.*; in the time of its onset and persistence and in its degree, but that it occurs is, I think, undoubted. In order to complete the summary of the morbid conditions which may develop in the fetal period of ante-natal life, it is necessary to state that probably every variety of neoplasm may be met with; but into this subject it is impossible

*Teratologia, 1895, II., p. 96.

here to enter, for it contains problems which would require an extended discussion.

Pathology of Embryonic Life.—Quite distinct from the pathology of the fetus is the pathology of the embryo. The morbid states which arise during embryonic life are so peculiar, so special, that it is no wonder that they have been placed by themselves in text-books of pathology, and regarded as something apart. It is only now beginning to be recognized that the pathology of the embryo is, after all, a part of general pathology, and is subject to the same laws. In a word, *embryonic pathology is teratology*; and, as Duval* pithily puts it, teratology is truly a chapter, but also a very special chapter, of pathology ("La tératologie est donc bien un chapitre, mais un chapitre tout particulier, de la pathologie"). Let me indicate briefly what this great generalization means.

It will be remembered that the life of the embryo consists in the evolution of the three layers of the blastoderm into the complex aggregate of organs and tissues which make up the body of the fetus. The embryo has no other functions than this—this is its one function. Now, when a morbid cause of any kind acts upon a fetal or adult organism it produces changes which interfere with its functions, *e.g.*, nutrition, respiration, excretion and the like. In this way a disease is set up. When the same cause acts upon the embryo it interferes with its one function, the formation of organs. In this way a monstrosity, a malformation, or a structural anomaly, is produced. In the one case the result is pathological, in the other it is teratological. Complete proof is not forthcoming; but I believe it will be furnished, showing that the causes of diseases are also the causes of monstrosities. The way in which the causes act is no doubt different, and the organism upon which they act and its surroundings are widely different; it is in this manner that the vast difference between the results, a disease and a monstrosity, is produced. We speak of pathogenesis in the one case, and of teratogenesis in the other; but the same ultimate causes, traumatism, toxins, microbes, poisons, lie behind both.

The experiments of Dareste, Panum, Warynski and Fol, Lombardini, and especially of Féré, have thrown much light upon the causes of monstrosities and their mode of action.

*M. Duval, Bouchard's *Traité de pathologie générale*, 1895, I., p. 164.

The embryo chick is the organism in which it has been found most convenient, artificially, to produce monstrosities, although a certain number of observations has been made on mammalian embryos. In the earlier experiments the means employed consisted in partially varnishing the eggs during incubation, in raising or lowering the normal temperature in the incubator, and in shaking the eggs or wounding their contents. By these measures it was found possible constantly to produce a certain percentage of chick monstrosities; but it was not very evident how the information thus obtained could be applied to the elucidation of human teratology. Far more valuable results have recently been obtained by Féré, who has experimented by injecting into the albumen of the egg at the beginning of incubation various substances known to be pathogenic when acting upon the adult or fetus. The results have been teratogenic.

Among many substances which have been found to be teratogenic may be mentioned the alcohols and isoalcohols, nicotine, the toxins of tubercle and diphtheria, mercury, atropine, hydrocyanic acid, and morphine. To a certain extent also the agents which are most pathogenic or most poisonous are also most teratogenic. The alcohols can be arranged in an ascending series according to their power of producing terata, beginning with ethylic alcohol and going on to methylic, propylic, butyric, and amylic. It may yet be found possible to group all the substances which act teratogenically in a series according to their relative virulence, and it will then be interesting to note whether those most powerful teratologically are also most effective pathologically. Certainly the alcohols which are most toxic are also most teratogenic.

While the ultimate causes of monstrosities are doubtless such agencies as have been referred to above, their mode of action presents very special and difficult problems for solution. During the embryonic period there seems to be good reason to believe that the amnion has a very important bearing upon these problems. It is the presence of the placenta which, to a large extent, impresses upon fetal pathology its peculiar characters; and in the same way it is the presence of the amnion that accounts for much that is distinctive in the pathology of the embryo. That the allantois and umbilical vesicle also play a part in producing malformations is, I believe, true; but it is specially the amnion

that moulds the structural destiny of the embryo. The importance of the teratogenic rôle of the amnion has been fully demonstrated experimentally by Dareste and others. One of the earliest phenomenon in embryology is the development of the extra-embryonic somatopleure to form the amnion; and anything which interferes with its evolution will cause disturbance in the growth of the embryo. It is probably on account of defective development of the head-and-tail folds that the terata with anencephaly, spina bifida and symphodia are produced. The delayed separation of the amnion from the body of the embryo, as in cases of absence of the liquor amnii, will result in the action of pressure; and the effect of the pressure will be the arrest of development in the stage then reached. The rest of the organism, not subject to this pressure, will go on developing; and so ultimately an embryo will be produced with one part or several parts in a stage of evolution anterior to that reached by the rest. A temporary and transient phase has for part of the body become fixed and permanent. If one imagine a continuous photograph of the evolution changes in the organism, and if one further imagine that the changes in the head, thorax, abdomen and limbs are represented by parallel photographic strips, then it is easy to understand that so long as the strips continue to move synchronously, as in a cinematograph, the picture of the phenomena will be normal and perfect. So soon, however, as one of the strips stops moving, or slackens its rate of progress, something very abnormal—monstrous, in fact—will be presented to the eye of the observer. The abdomen may be found in an early stage of evolution, while the rest of the body has moved on into a later phase. In some such way exomphalos may be produced. The comparison is, at best, an imperfect one; for in teratology other factors come into play, and the continued evolution of the rest of the body will in time come partly to mask the part which has had its progress stopped, continued pressure will cause fusion of neighboring developing parts, and so forth. An instance of this is found in the sireniform fetus, in which the amniotic pressure arrests the development of the tail end of the embryo and of the lower limbs, then causes rotation of the stunted limb-buds outwards and backwards, and finally leads to a greater or less marked fusion into one limb of the originally separate ones.

While fetal pathology is concerned with diseases, and embry-

onic pathology with monstrosities, both the fetus and the embryo are subject to death. Here, again, the nature of the organism and its surroundings have much to do in determining the character of the morbid changes which result. Maceration is characteristic of fetal death; dissolution and mummification mark embryonic death. There is some reason to believe that although the fetus is dead yet its annexa may continue to live, and so there are also some grounds for supposing that the embryo may die and the rest of the blastodermic vessicle go on growing. Into the subject of the curious forms of abortion sac which are thus produced Giacomini has entered, and while he has discovered many interesting facts, many questions still remain obscure. I have met with three cases, in two of which the abortion sac contained a nodular embryo of only 2 or 3 mms. in length, instead of one of 5 or 6 cms., while in the third sac the most minute examination revealed no embryo at all.

Just as the transition from fetal to infantile life is marked by a terrible mortality, so, I believe, the passage from the embryonic economy to the fetal is accompanied by a great destruction of embryos. Everyone knows how common is abortion at the second and third month; and, while several causes have been adduced to explain this, it is reasonable to suppose that the radical changes which mark the replacement of embryonic conditions by the fetal environment lead to embryonic death, and so to emptying of the uterus.

Now, while it is true that morbid causes produce diseases in the fetus and monstrosities in the embryo, it is not always possible to distinguish between what is a disease and what is a monstrosity. The reason is not difficult to find. The whole organism does not pass out of the embryonic into the fetal stage at the same time: one part or organ may be yet in the stage of construction, of evolution, when the part next to it has taken on its mature form and has become functional. An instance of this is met with in the limb-buds, which are still embryonic when most of the internal organs are in the fetal state. A morbid cause, therefore, acting upon two parts of the organism may produce a disease in the one and a deformity in the other. This is one reason why the so-called fetal bone diseases and the malformations of the limbs is so difficult to understand. What we regard as peculiar bone diseases, and try vainly to classify with

post-natal osseous lesions, may be really malformations, while more or less complete absence of the limbs or their rudimentary state may be either the results of disease or of arrested development.

It would be contrary to what we know of pathological states in post-natal life if we were to find sharply defined and clearly delimited morbid conditions in ante-natal existence. It is not with well-marked types, but with the intermediate types, the connecting links, that difficulty is found in classification and in comprehension. This is true of both post- and ante-natal life. Over these difficult cases, however, I shall not linger, for what I wish in this paper to do is to lay down general principles rather than discuss individual instances.

Even in post-natal life some few parts of the body remain in an incompletely developed form for some years. A good example of this is found in the uterus, which does not take on its adult characters or begin to functionate till the period of puberty. If, as sometimes happens, the uterus retain its fetal or infantile form in adult life, the result produced is a malformation, and is usually described as such. In this sense there is, as it were, a projection of the embryonic state through the fetal into the post-natal. Cases such as the above, while they increase the apparent complexity of the problems of pathology, serve to emphasize the general principle that morbid causes acting upon embryonic states produce malformations or monstrosities, and that the same causes produce diseases when they influence fully formed organs and tissues.

Pathology of Germinal Life.—Comparatively little is certainly known of the pathology of the germ, and what information we possess has been almost entirely gained from the study of the lower animals, and even of invertebrate organisms. The great phenomenon of germinal life is impregnation with its antecedent phenomena of maturation and polar extrusion, and its subsequent phenomena of nuclear division and the formation of the morula mass. It is, therefore, to be expected that morbid causes, acting during the germinal epoch, will manifest themselves in results determined by the physiological characters of germinal life. There will be a disturbance of the normal progress of the phenomena of impregnation and segmentation. Experiments upon such organisms as ascidians and echinodermata have shown that

such morbid causes as quinine, chloral, and cold, stop karyokinesis, while partial destruction of the segmentation spheres led to the production of monstrous fractions of individuals ("monstres fractions d'individu"). These experimental investigations by Hertwig, Chabry and Roux, and others, prove that monstrosities of a very advanced type result from the action of pathological agencies (traumatic or toxic) during the segmentation of the ovum. It is difficult to draw any deductions therefrom regarding the human germ, for it is scarcely conceivable that such a rudimentary organism as the fraction of an ovum could continue to develop *in utero*; but the well-known placental parasites, which are really only portions of a fetus, are brought to the full term through the presence of a normal twin, and in them it may be legitimate to look for resemblance to the artificially produced ascidian fragments.

The phenomena of impregnation may also be interfered with, and the tendency of modern research is to regard the very interesting terata, known as double monsters, as due to such interference. What is known as polyspermy, or the entrance of more than one spermatozoon into the ovum, is now the most strongly supported theory of diplogenesi. Further, it is possible that certain very rudimentary and puzzling structures, such as dermoid cysts and teratomata, may originate in absence of the normal male element in impregnation and in a consequent imperfect parthenogenetic development of the ovum.

The pathology of germinal life is, therefore, probably teratological in type, and so resembles the pathology of the embryo. At present it would be unprofitable to attempt to classify teratological productions according as they were developed in the germinal or embryonic epoch of ante-natal life. The only suggestion that may be hazarded is, that while monstrosities by defect are characteristic of embryonic pathology, monstrosities by excess (polysomatous terata) seem to be the special product of germinal pathology. Even this generalization, however, is not very firmly based.

So far, however, as experimental teratogeny has gone, it would seem that the same morbid causes (toxic, microbic, traumatic) are at work in the germinal as in the other epochs of ante-natal and post-natal life. In the meantime pathology must wait upon physiology, for we cannot expect to know much about morbid

processes in the human germ till we know more of its physiology, and of that we are, at present, wonderfully in the dark.

Recapitulation — Etiological Unity.—So far, therefore, as our knowledge of the pathology of post-natal and ante-natal life has carried us, it would seem that the same morbid causes are in action in all the periods into which the existence of the organism has been divided. The etiological factors of post-natal pathology, such as microbes and their toxins, poisons, mineral and vegetable, and thermic and traumatic states, have been found to be also the causes of pathological developments in the fetus, embryo, and germ. It has further been shown that probably the most effective morbid agencies in post-natal life are also the most active before birth. The results of the action of these factors differ widely, but the differences can be explained by differences in environment and in the structure of the organisms acted upon. Teratology is thus brought into line with pathology, of which it is simply an obscure, but not unimportant, department; and teratogenesis is seen to be simply pathogenesis acting on an immature organism. There is a unity in morbid causes.

Hereditary Tendencies.—Manifestly this would be an incomplete sketch of ante-natal pathology if it contained no reference to hereditary tendencies. In addition to the external agencies, microbic and toxic, which determine disease in post-natal life, there is the predisposition to certain maladies, and the incomplete or complete immunity against others which heredity brings to the organism, and which gives to the organism its individuality. In ante-natal life, also, hereditary tendencies are evident both in the fetal and in the embryonic periods. Many fetal diseases, such as ichthyosis, general dropsy, fetal rickets, etc., are hereditary. In the nature of things it is seldom that direct heredity can be demonstrated, for, as has been explained, infants with such maladies rarely live, and therefore their progeny cannot be referred to; but that form of heredity known as family prevalence is very common in most fetal maladies. I have elsewhere* referred to many instances of this in congenital skin lesions, and have specially noted cases in which a woman had by one husband healthy children, and by a second spouse ichthyotic or dropsical infants. The sperm as well as the ovum may carry these tendencies.

*Diseases and Deformities of the Fetus, 1892-95, vols. I and II.

In embryonic life, also, the same tendencies are met with, and I have recorded cases of the birth of two, and even of three, anencephalic fetuses in the same family. I have also met with polydactyly in several generations, and in several individuals in the same generations. One very interesting history I may give here. It was that of a woman showing a defective development of the muscles of one thumb; her first child had hydrocephalus and absence of one thumb, and her second fetus was anencephalic and had one thumb represented by a formless mass of skin-covered adipose tissue. Further, nothing is better known in the artificial production of monstrosities than the individuality of the germ, for no matter how strongly teratogenic the agency may be (*e. g.*, hydrocyanic acid), some organisms will escape its action and develop normally. I might extend and apply these observations to germinal life, and refer to the heredity of twin-bearing, etc., but I must draw this already too long address to a close. Suffice it to say, that it is evident that in addition to morbid causes coming from without, we have to deal constantly with hereditary tendencies for or against pathological developments existing already in the organism. This is true of the pathology of all periods of life, ante-natal as well as post-natal; and the net result is the health or disease, deformity or malformation, of the individual.

In a tabular form some of the chief conclusions which have emerged from this manner of regarding ante-natal pathology may now be given:

		<i>Morbid Causes.</i>						
Life	{	Post-natal	{	Disease (Pathology)	{	Death		
		Neo-natal						
	{	Ante-natal					{	Monstrosity (Teratology)
		^						
	Ovum Sperm							
		<i>Hereditary Tendencies.</i>						

In this communication I have refrained from touching upon any of the aspects of ante-natal pathology save those of its etiology. I have said nothing of the means of diagnosis of monstrosities and fetal disease before birth; although noteworthy advances have to be recorded in this relation; I have passed over the symptomatology and clinical history of such cases, and have

referred not at all to their obstetric aspects; the prophylactic treatment of ante-natal malformations has been left unconsidered, as have also their medico-legal bearings. Nevertheless, all these aspects of the subject present problems of high interest; and with some of these I hope to deal in a series of six lectures to be delivered next session within the University of Edinburgh.

Gentlemen, I have tried to play the rôle of a guide, albeit a very inefficient one, in revealing to you some of the little-known departments of ante-natal pathology. I have this qualification, at least, that I know some of the difficulties of the way, and some of the obstacles to be overcome. At best, I have given you but a glimpse of certain parts of the subject, and have through ignorance or imperfect acquaintance with other parts had to keep silent; but if I have succeeded in rendering any portion more interesting or attractive, or in establishing ante-natal pathology in its rightful place, as a branch of general pathology, I shall have achieved a very large measure of the success I have hoped for. I have, in conclusion, to thank you heartily for the high honor you have paid me in inviting me to give this address.

A Good Retort.—The Secretary of the Iowa State Board of Health was lately called upon to report upon the case of a leper living near Graettinger, in that State. He advised the Legislature there was no special need for their interference, but that there was much greater need for legislation for the suppression of tuberculosis than for that of leprosy.

Missouri State Medical Association.—At its late meeting at Kansas City a resolution was adopted providing for the appointment of a committee to draft a bill to be presented at the next session of the Legislature creating a State Board of Health, and the enactment of strict sanitary laws, with provisions protecting the association from quack practitioners. Joplin was selected as the next place of meeting and the following officers chosen: S. R. Highsmith, Carrollton, Mo., president; W. A. McCandless, St. Louis; W. S. Wainwright, Kansas City; W. S. Allen, Olean; J. D. Brummell, Salisbury, and W. E. Lucas, Minden, vice-presidents; A. F. Dressel, Sedalia, secretary; B. C. Hyde, Kansas City, assistant secretary; E. Van Note, Hamilton, corresponding secretary; Ed S. Wright, Fayette, treasurer.

THE THERAPEUTIC VALUE OF FERRATIN.*

BY DR. HUGO WIENER,

Member of Staff of Prof. R. v. Jaksch's Medical Clinic in Prague.

Through the following I desire to attract the attention of the general practitioner to a new iron compound, used lately with good results in the clinic of Prof. R. von Jaksch, namely ferratin, a compound of iron and albumen, first produced by Schmiedeberg, from hog's liver.

This compound is quite rich in iron (containing 6 per cent. Fe), and, according to Schmiedeberg, it is the only ferruginous substance occurring in the normal organism, so that in taking our ordinary meals we supply the requisite iron to our system in the form of this product. As Schmiedeberg has proved, ferratin is utilized directly for blood formation; it disappears from the liver of a dog, if the same is kept on iron-deficient food and is frequently bled.

As ferratin is an assimilable compound of iron and albumen, it was a foregone conclusion that good results would follow its therapeutic use, the product being one which the normal organism is able to utilize. It is absorbed gradually, and as it is partly changed in the stomach by the gastric juice, and partly in the intestine by the sulphide of hydrogen, a surplus should be constantly kept in the intestinal canal to provide for requisite absorption. It is perfectly safe to administer a large quantity of ferratin, as it does not in the least irritate the mucous membrane of the stomach, but, on the contrary, having a slightly astringent effect, it exercises a favorable influence on pre-existing hyperemia of the membrane.

In the clinic of Prof. v. Jaksch twenty cases of widely differing forms of primary and secondary anemias were experimentally treated with ferratin. In all cases the product was readily taken and well borne, without causing even the least stomach derangement and having no contrary influence on the appetite. The paleness of the patients was rapidly decreased, while the number of red blood corpuscles increased, as did the proportion of hemoglobin notably.

In all cases the ferratin was given in daily dosage of 2 grammes. To illustrate the effect the following sample records are quoted:

*Translated from original in *Prager Medicinische Wochenschrift*, Vol. XIX, No. 16.

H. A., 19 years old; anemia post ulc. ventriculi.

Nov. 13. 1,965,000 red corpuscles, Fleischl, 4.2.

“ 19. 2,740,000 “ “ “ 4.9.

“ 24. 3,850,000 “ “ “ 6.3.

“ 29. 4,210,000 “ “ “ 6.3.

Dec. 6. 4,990,000 “ “ “ 10.5.

It may be argued that the anemia due to ulcers bleeding would yield spontaneously or on administration of some other iron preparation; but granting this, the above record nevertheless shows that ferratin is not second to any other agent.

Another case treated with ferratin was this:

E. H., 14 years old. Diagnosis: morbus maculosus Werlhoffii (purpura hemorrhagica). While the number of red blood corpuscles was nearly normal, there was a great deficiency of hemoglobin. On administering ferratin the hemoglobin increased continuously, interrupted only once by a brief decline, due to a severe and protracted epistaxis (on December 7th). The record of hemoglobin shows: November 11th, 4.9; 19th, 4.9; 24th, 5.6; December 2d, 6.3; 7th, 3.5; 13th, 6.3; 19th, 7.0; 26th, 7.7; January 5th, 7.7; 11th, 7.7; February 5th, 8.3.

These illustrations, typical of our experience, and the favorable clinical reports of Bauholzer,* of Eichhorst's clinic, prove that ferratin at least is not inferior to any of the current iron preparations. But it actually acts much better, and deserves preference, moreover, because it does not disturb digestion—rather stimulating same—and has none of the unpleasant side effects common to all heretofore preparations.

Individual Freedom the Rule at Vassar.—At Vassar the student is winning greater freedom, too, in her domestic life, for the system of self-government throws the responsibility in regard to the order of the community upon the girls. Certain cardinal rules are submitted by the faculty to the student body. If approved, they are adopted, and the police force appointed to carry them out is made up of students. The change has brought greater freedom of speech and of action to the students, and the old gulf between the governing body and the populace is being bridged over.—From “Undergraduate Life at Vassar,” by Margaret Sherwood, in the June *Scribner's*.

*Bauholzer, Centralblatt f. Klin. Medic. 15, 73, 94.

CORRESPONDENCE.

ON THE CONTAGIOUSNESS OF LEPROSY,

Editor ST. LOUIS MEDICAL AND SURGICAL JOURNAL:

Dear Sir—The “error” which Dr. Impey thinks that I fell into in saying that in his opinion the isolation of anesthetic lepers was wanton cruelty, inasmuch as the isolation is not necessitated by the danger of contagion from them, and as, on the other hand, they are thus themselves exposed to be contaminated by unnecessary contact with tuberculous lepers, is, I think, a very natural one. I stated that such was Dr. Impey’s opinion, having convinced myself that such it was by reading carefully Dr. Impey’s article in the *Semaine Médicale*.

In his letter Dr. Impey says that he did not state that “the immunized tissues are in danger of infection with nodular cases of leprosy.” He ought certainly not to have stated that: why, indeed, should immunized things behave as if they had no immunity? But he did state it. For in how many ways can the following be understood: Dr. Impey says (on the non-contagiousness of anesthetic leprosy):

“My object in writing this paper is to endeavor to show that it is unnecessary to segregate all lepers, for in some of them, in my opinion, the disease is non-contagious and therefore harmless. * * *

“I believe that many of these patients at present confined in leper asylums are not suffering from leprosy, but only from the effects of the disease. * * *

“I am aware that in some very chronic cases of anesthetic leprosy, tubercular symptoms sometimes, though very rarely, supervene; but I certainly cannot admit the explanation given of this fresh outbreak. I do not, by any means, consider it as a recrudescence of the disease, but I believe that it is due to a fresh infection.

“Old anesthetic patients have often many wounds, and are always of feeble constitution; being forced to live in constant close contact with tuberculous patients, from whose wounds bacilli in enormous numbers escape, it is not to be wondered at that some of them contract the disease a second time.

"In all these cases it is to be noted that it is not the anesthetic, but the tubercular, symptoms which start afresh; that is a type of the disease quite different from the first attack.

"In South Africa there are 2,000 cases of leprosy; 650 are tubercular, or mixed; the rest are anesthetic.

"It is, in my opinion, highly necessary to strictly segregate these 650 dangerous cases; but I think that the anesthetic patients should be set at liberty.

"It is not only unnecessary to isolate them, but it is wrong; for by doing so we condemn many patients who are not suffering from leprosy to herd with those from whom some of them at any rate must again contract the disease."

(There is not a word of immunity in all this!)

To explain how, when the anesthetic leper is cured, the other tissues may be infected, Dr. Impey invents what he calls vaguely a *protection*, which exists while the disease is active, and gradually dies out after cure. What does he know about it? Where is the proof? This is a hypothesis which it is easier to reject than to accept.

I think that Dr. Impey ought to think a little more about the consequences of the things which he affirms. We isolate lepers, not for the lepers' sake, but for the sake of the people at large, that they may not be infected. If we put the cured lepers among these people at large, it is because they are now part of the people at large, being cured. But how are we to know that the disease is cured? The anesthetic leper, when he is proclaimed clean, will naturally return where he came from before his isolation; where he came from therefrom also came his disease; in that place, very likely by those people whom he will instinctively join on the day of his liberation, he was infected, and he may now, as his immunity, or protection, dwindles away as the days go on, be infected again.

Let me observe, however, that it is not the liberation of the cured leper that Dr. Impey advocates on account of his harmlessness, but the non-isolation of all anesthetic lepers on the ground of their not being dangerous.

Dr. Impey, I think, is mistaken in attributing to the preference of the bacilli for a particular tissue, the difference in type of the disease. It is, perhaps, more to chance than to choice that such differences are due. They may be due simply to the

chance which brings the bacillary influence to bear upon one place or one tissue rather than on another. Does not the same thing happen in tuberculosis and syphilis? This explanation is certainly simpler and more plausible than any founded on the tastes or idiosyncrasies of that mysterious creature called the bacillus of Hansen.

Nor is it proven that the toxine will not produce the anesthesia in the nerves, just as the toxine of the diphtheria bacillus affects the nerves. How does Dr. Impey explain direct inoculation from an anesthetic leper to the passage of a knife through an anesthetic spot (mind you, where no bacilli are), and the passage of the same knife immediately afterwards through the tissues of a healthy person, followed by anesthetic outbreak of leprosy? Because there is not an open sore in an anesthetic leper one month is no reason to assume that there never will be one, through his hurting himself, burning himself, or in some other way besides mutilation breaking his skin (he having no feeling), and becoming thus a danger to his environs.

I deny that it is necessary for a leper to have the bacillus of Hansen in his tissues to be a leper, dangerous to his neighbor. I deny that the presence of Hansen's bacillus in tissues makes of a man a leper; and I furthermore believe that it is necessary for the bacilli to colonize and to take on a virulent character to produce toxine before the disease leprosy can be diagnosed. The difference in virulency in different tissues decides, I have no doubt, the type of the disease. An anesthetic leper is a leper just the same as a tubercular leper is a leper, and his skin being broken he is just as dangerous to his neighbor as the tubercular. I do not believe in immunity from leprosy any more than I believe that an anti-toxine can be formed in a refractory animal by the inoculators of a leprous toxine. If a leper is a leper all his tissues are susceptible to leprosy, just as all the tissues of a syphilitic are susceptible to the syphilis germs; just as all the tissues of a consumptive are susceptible to the tubercle germ. To assume that one part of a man can be preyed upon by a bacillus, and the other parts may keep themselves during all that preying from the influence and invasion of the bacillus, is just as inadmissible as the development of immunity in one tissue and not in all. What difference is there, in fact, if we look closely at the matter, between nervous tissue and muscular or bony tissue;

the same blood permeates and nourishes all. If there is immunity in a tissue, this immunity is due to anti-toxine, worked in the blood; and why should this not go to all the tissues. It strikes me that in the marrow of bones there should be more immunity than anywhere else; yet that very tissue suffers more than the nervous tissue. There is evidently no immunity developed; one tissue is exposed and has to take its chances, as well as the other, of inside and outside inoculation.

I earnestly beg Dr. Impey to tell me how the two following passages taken from his letter in the ST. LOUIS MEDICAL AND SURGICAL JOURNAL, June, 1898, are to be reconciled: "We know that after an attack of a specific fever the body is for a variable time protected against a second attack, and we know that gradually the protecting influence is lost; so that the tissue, which at first will not support the bacillus, will, in course of time, support it freely. The patient then becomes liable to a second attack of the same disease. This is exactly what happens in regard to these anesthetic cases. The patients become cured; but, being forced to live in close contact with nodular cases, they are liable to re-infection, and occasionally a second attack of leprosy.

"I am certainly of opinion that in anesthetic leprosy all the tissues, except the nerves, are in some way protected from infection by the bacillus lepra; but I did not state that the immunized tissues are in danger of infection from contact with nodular cases of leprosy."

Now, am I to understand that anesthetic cured cases can, on contact with nodular cases, occasionally contract a second attack, and that at the same time Dr. Impey does not mean to state that the immune tissues are in danger of infection from contact with nodular cases? "This second attack," Dr. Impey further says, "is not a recrudescence of the anesthetic symptoms, for in it the nerves are not further affected; it is always an attack of nodular leprosy. It cannot be a case of self-infection, for, as I have shown, the body of the patient is free from bacilli at the time of the attack, so that it must be due to the introduction of the bacillus from external sources. It is, I think, not only inhuman but wrong to isolate these cured cases, and to force them to live amongst lepers cruel and wicked."

Here is the same contradiction again; for if there is shown here any immunity whatsoever, it is in the *nervous* tissues.

“While the tissues are immune the anesthetic leper cannot reinfect himself; and the very fact of his not being able to do so is a very strong argument in favor of immunity.”

But is *his not being able to do so* a fact? If so, how has it been ascertained? How can it be ascertained? Until Dr. Impey's cured anesthetic leper is proved to possess a curative anti-toxine in his blood against *bacillary* (tubercular) leprosy, no such thing as immunity can be assumed. Until his *uncured* anesthetic leper is shown clearly to possess non-susceptibility in his other tissues besides the nervous, to inoculation of tuberculous leprosy, no such thing as immunity can be spoken of. And if such immunity is proved, there is proved also that Hausen's bacillus is not the cause of leprosy.

“Every mixed case of leprosy is in my opinion an argument in favor of immunity; for, if the tissues in some cases be simultaneously affected by the bacillus, then in other cases they are not simultaneously affected; there must be some reason for the difference; and the only way in which to account for this difference is by acknowledging some form of immunity.”

There must be some reason, says Dr. Impey. There must be immunity; with this blessed word everything is explained. Why does opium induce sleep? Why, because it possesses a dormitive virtue. How, indeed, could we explain the induction of sleep except by the dormitive virtue, which is certainly as explanative as any immunity.

ALBERT L. ASHMEAD.

New York, May 23, 1898.

AN OPEN LETTER TO DR IMPEY.

Dear Dr. Impey—In the following lines you mention as your opinion a fact which you evidently believe to be striking, and, perhaps, difficult of belief, and which to me appears rational enough. You say: “I am of opinion that while the disease exists there is no danger of an anesthetic leper being reinfecting from contact with nodular cases, for the skin is at that time immune; but I think there is great danger of the cured cases being reinfecting in this way.” This can mean but one thing. If a man has the disease, he cannot get it; but if he has not got it he can get it. Well, this is also my personal opinion. So that if anybody dares to impugn it he will have to do with you and myself.

The following memorandum, entitled "Immunity From Leprosy," was published by me in the *University of Pennsylvania Medical Magazine*, May, 1898:

"The opinion of leprologists on the Carrasquilla serum seems to be suspended. The conference of Berlin rejected it; but it is just possible that such a trenchant judgment is premature, as the medicine has not yet got a fair trial. Scientifically it is wrong, as there is no culture of bacilli to start from.

"Carrasquilla claims that the toxine of the bacilli already cultivated in the human tissues, is in human blood, and that this toxine, extracted from the human blood, and injected into the horse, develops an antitoxine which is curative for leprosy. We know that the horse is immune to leprosy. Now if the horse's serum, after inoculation with a possible toxine, is curative for leprosy, why should not the human blood serum of a cured anesthetic leper be curative for leprosy? For there the antitoxine which has overcome the toxine and the bacilli (if bacilli belong to anesthetic leprosy, as they must) must exist in considerable quantity. Why not, therefore, try my idea? Take an anesthetic leper, in whom the disease has run out, blister his skin, draw the serum and inoculate a tuberculous leper with it, and see what effect will be produced on the tubercles, if any; or else, take the serum from a blister on a tuberculous leper and inoculate an anesthetic leper (not cured), and see if you can produce tuberculation in him. If you can, there is no such thing as immunity. In the first instance, if there is regression, it is reasonable that there is a curative antitoxine; why not then replace Carrasquilla's serum simply by the antitoxic serum of a cured anesthetic leper? Certainly if, as Carrasquilla claims, toxine exists in a leper's blood, an antitoxine must exist also, and, in a cured anesthetic leper's blood, in great quantity. If it does not exist, then the leper bacillus is different from all bacilli we know; for it does not produce toxine, otherwise there would be an antitoxine formed, or it does not produce antitoxine enough to neutralize the toxine, or it does so rarely even in anesthetic cases.

"If these experiments should show that there is no immunity in a cured anesthetic leper, then Carrasquilla's treatment would scientifically be swamped, and Impey's theory of tissue immunity would also fall to the ground. For if, as Carrasquilla claims, toxines of the bacilli are in the human blood, and can be, at any

period of the disease, inoculated in the horse, and there produce antitoxine in sufficient quantity to be curative, then the blood serum of the leper should produce leprosy when inoculated in a human being, *even without the leper bacilli* being present. For if you can produce an antitoxine in the horse, an animal refractory to the disease, you should be able to produce leprosy in a human being by inoculating the toxine without the bacilli. If this is so, an anesthetic leper's discharges should be contagious, even if no bacilli were in them, just as contagious as the discharges of a tuberculous leper filled with leper bacilli.

"*Propositions.*—1. If inoculation of leprosy toxine into an animal produces an antitoxine, inoculation of toxine should produce leprosy in human beings, and will be a thousand times more likely (the former being refractory, the latter not).

"2. If an anesthetic leper has all his tissues, except nervous, immune, inoculation of leper bacilli from a tuberculous leper should not produce tuberculation. If these tissues are not destructive of bacilli they are not immune. If they are immune the inoculation of toxine should produce an antitoxine serum a thousand times as great as Carrasquilla's serum in the horse, if we suppose for a moment that anything at all is produced in the horse by the toxine.

"One can imagine if the horse could be exposed to the toxine of leprosy as many years as the cured anesthetic leper has been, that an antitoxine serum strong enough to be curative might be obtained. That is, if the toxine in the horse's blood, with or without the bacilli, could work out an antitoxine in that immune soil."

All this has something labyrinthine about it; I am well aware of it. As in what I have said, I have tried to keep hold of the threads of both your own theory of immunity and of Dr. Carrasquilla's theory of inoculation of leprosy toxine into the immune horse. To complicate the matter, there is the proved fallaciousness of Carrasquilla's treatment, the report of the government committee of Bogota having rejected it, since the Berlin conference. I cannot see how you can argue that yours is right when his is proved to be wrong. I should have no difficulty in assuming that the lepra bacillus is not equally toxic in all tissues or in all individuals. I think I could also understand how a bacillus of a special toxicity would produce a peculiar

type of disease; that a type of disease might even, perhaps, be produced by inoculation of toxine without the bacillus. But I shall not on that account believe that anesthetic lepers are not dangerous to their environment, and therefore should not be isolated. I believe that they are dangerous, however mild their type may be, and whatever may be their nearness to complete cure.

Very truly yours,

ALBERT S. ASHMEAD.

New York, May 26, 1898.

“ANESTHETIC LEPROSY IS CONTAGIOUS.”

Dr. William Munro of London, formerly of the Leper Asylum, St. Kitts, British West Indies, writes me as follows: “I have read your last very important letter (in opposition to Impey’s theory), and I think you have proved your case. You have modified my own former opinions as to the danger of allowing anesthetic lepers with *no sores* to be at large.”

ALBERT S. ASHMEAD, M.D.

The Germicidal Power of Formaldehyde.—Dr. David D. Brough (*Journal of the Massachusetts Association of Boards of Health*, March; *Sanitarian*, June) thus sums up the results of two series of exhaustive experiments detailed in a paper on the “Use of Formaldehyde in House Disinfection:” 1. That formaldehyde gas is a very efficient and practical germicide for superficial disinfection. 2. That its penetrating power under ordinary conditions is very slight. For deep penetration it has practically no value. 3. That larger amounts give much more constant and satisfactory results than small amounts. 4. That, other things being equal, the gas acts better at fairly high temperatures than at low. It also apparently gives better results in warm, dry rooms than in those that are cold and damp. 5. That its action does not seem to depend on the length of exposure. In five hours’ exposure the results were the same as for a longer period. It may be here noticed, in conclusion, that the gas is not so innocuous to animal life as some writers have stated. While no experiments were made with this in view, it was observed that all the flies were invariably killed, and generally the bedbugs. One dog and two cats, which were accidentally left in the rooms of different houses, and exposed to the action of the gas, were found dead when the rooms were opened.

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Medical and Surgical Journal.

A. H. OHMANN-DUMESNIL, A.M., M.D.,

Editor and Proprietor.

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EDITORIAL.

JUSTICE.

Fiat justitia ruat cælum.

Our readers will remember that in our last we took the *Journal of the American Medical Association*, among others, to task for having consented to publish the advertisement of a patent medicine. We have learned since that the acceptance was a forgery, and we are most pleased to know it. We quote from a late number of the *Journal*:

"THE JOURNAL AND ITS FRIENDS.

"When *Printer's Ink* was victimized by some forger, who used the good name of the *Journal* on a blank, how the Pharisees shouted to see the alleged slip from the plain, straight orders on which advertisements are admitted! The ghoulish 'I told you so,' and the Mother Caudle-like lectures which have been read to the

Journal, would be amusing if they were not plain and manifest examples of ill will, spite and jealousy. One medical journalist alone had the good sense to write a letter here asking the *Journal* if the statement published in *Printer's Ink* was correct. That gentleman was promptly informed that the circular had not been received in this office, and that, long before, the article in question was refused admission to the advertising columns of the *Journal*. Had the other journals been true friends, they too would have written to this office for information before falling upon us tooth and nail. Let us see now how promptly they can disclaim the wrong they have done us. As we have printed a fac-simile of the document on which the patent medicine people put us in their list, perhaps they can point out the person who filled up the blank by recognizing the handwriting."

What we desire to say is, that the charge of alleged pharasaism is unfounded in our case. The *Journal* took some weeks before making a denial of the letter published in *Printer's Ink*; and the JOURNAL had long been issued when the denial occurred. We are certainly sorry for having hurt the feelings of Dr. Hamilton, whom we never supposed guilty of the act, but rather some one connected with the business department. We second the suggestion that the forger of the acceptance be ferreted out; but would it not be better to find where the letter was posted? Perhaps it bore the Chicago post-mark.

AMERICAN MEDICAL ASSOCIATION MEETING.

Despite the Hispano-American war, the meeting at Denver was a success, and the Association began the second half of its century of existence under most auspicious circumstances. The general meetings were well attended, and the section meetings were also graced by the presence of many members. From a scientific point of view the meeting was a marked success. It is to be regretted that the present war prevented the President of the Association, Dr. Geo. M. Sternberg, Surgeon-General U.S.A., from being present. His address, which was a masterly one, was read for him during his absence. The 1,500 members who were present deplored the necessity of this hiatus. The social features of the meeting were on a grand and magnificent scale, and it will be many years before the Denver meeting is forgotten.

MISSOURI STATE MEDICAL ASSOCIATION.

As announced in our last issue, the disaster to "The Elms" at Excelsior Springs necessitated the holding of the meeting at Kansas City. This, no doubt, had some influence in reducing the attendance, which was not quite so large as we were led to expect. The program was a good one, and the papers excellent. The audience was quite interested, and the discussions were participated in by quite a number of members. We hope that better fortune will attend the next meeting.

THE CONTAGIOUSNESS OF LEPROSY.

This question is one which is the subject of much discussion by the most eminent leprologists of the world. Those who have not had extensive experience in the observation and treatment of lepers are certainly not to be considered competent judges of the many intricate and interesting points which are involved. Dermatologists have considered the question at issue rather from theory than actual and extended observation; so that, as a matter of fact, their opinions can hardly be looked upon as final. In the present number of the JOURNAL our readers will find a presentment of one side of the question by Dr. Ashmead, who has had occasion, during his sojourn in Japan and visits to other countries, of observing and studying many cases of leprosy for comparatively long periods of time. We would recommend our readers to carefully peruse the matter presented on this subject, as it is one of importance, and which will no doubt lead, at some time in the future, to the enactment of Federal laws in regard to the proper methods of dealing with those afflicted by the dread malady. Dr. Impey, of Capetown, Africa, has already expressed himself in our pages, and his experience as superintendent of a leper asylum is certainly deserving of careful attention. The coming Leper Congress at Paris, in 1900, will no doubt arrive at most valuable conclusions, for the formulation of which preliminary discussion will be most useful.

MEDICAL PROGRESS.

MEDICINE.

When May Women with Heart Disease Marry?—Dr. Kisch (*Therapeut. Monats.*, February, 1898) said the chief points to be considered are: (1) the kind of heart disease; (2) its duration; (3) the presence or absence of compensation; (4) the general health; (5) the social position of the patient.

(a) They may marry if the disease is not of long standing, and compensation is good, and the general health not undermined. They will have during pregnancy, and still more during and for a time after delivery, many troubles due to their heart, but in by far the greater number of cases there will be no danger to life. This applies to well-compensated mitral regurgitation and stenosis, aortic regurgitation, fairly marked sequellæ of pericarditis, and to muscular degeneration if not too far advanced. The patients must also be in a position to spare themselves bodily exertion as much as possible during pregnancy, to avoid mental excitement, and to have constant medical supervision.

(b) The prognosis is not so good if the patients are very anemic or nervous, or advanced in years, or if the valvular disease is congenital or acquired in childhood. In these cases the physician should advise against marriage, or at any rate point out that the disease will almost certainly become worse after marriage.

(c) Marriage is to be absolutely forbidden as dangerous to life when compensation is failing, or when there is advanced muscular degeneration. In all cases where there is dyspnea, palpitation and quickened pulse on slight exertion, or marked edema not disappearing after rest in bed, when there is tendency to arrhythmia, scanty urine with albumin, and attacks of irregular small pulse, coldness of the extremities, nausea, dyspnea, syncope, etc., marriage is dangerous, whether the cause of the symptoms be valvular disease, diseased arteries or cardiac muscle. Even those for whom marriage is allowable must follow certain rules strictly:

1. Coitus must not be frequent, and must be continued to the end of the orgasm, otherwise reflex heart troubles and depression result.

2. They must not have more than one or two children, as the strength of a diseased heart diminishes with every pregnancy in geometrical progression. If this rule is followed induction of premature labor will be luckily seldom necessary, since when it is the results are very unfavorable.

THERAPEUTICS.

Ferratin the Only Available True Organic Iron Compound.—When Dr. G. A. Fackler read his instructive paper on Ferratin before the Cincinnati Academy of Medicine, one of the society's members, in the discussion following the reading (*Cincinnati Lancet-Clinic*, April 14, 1894), suggested that the product might be new in name only; that it might simply be another albuminate of iron, no better than the others, and that it was "synthetically prepared, and that the process was secret." Dr. Fackler's prompt response dispelled these doubts fully, and his remarks are worth quoting to the profession generally, because they effectively prove the unique position of Ferratin as the only available organic compound, although there are many pretenders. Dr. Fackler said:

"The speaker evidently classed Ferratin with the ordinary iron albuminates. I would certainly have hesitated to bring to the attention of the Academy any of the ordinary preparations of iron which are so frequently brought to our notice by the agents of manufacturing chemists, since, as has been said in the paper, they are in no way superior to the inorganic compounds of iron. In Ferratin, however, we have a compound which, because of the fact that it is not altered in the stomach or intestinal tract, is wholly absorbed and available. One speaker has truly said that no matter what preparations of iron we administer, they undergo the same change in the intestinal tract. This change precludes their absorption, since it is due to the formation of a sulphide that cannot be absorbed. Ferratin, due to the intimate union between it and albumen, is so slowly attacked by the sulphuretted hydrogen that it is absorbed before an alteration into the sulphide can occur. What more rational therapeutic plan could be adopted than to give iron in such form as to follow the natural process of furnishing the organism with a form of the element as it is introduced with the food? It is in reality a food, which is stored up in the tissues in a form to

make it available for blood formation. The process of manufacture is not secret."

PHYSIOLOGICAL AND PATHOLOGICAL NOTES.

Amylolytic Ferments.—In an article on this important subject by Wyatt Wingrave, M.R.C.S., Eng. (Assistant Surgeon to the Central London Throat and Ear Hospital), in the *London Lancet*, May 7, 1898, we are informed of a personal necessity that arose in the writer's experience for a reliable starch digestant. A crucial comparative examination was therefore made of many malt extracts and of Taka-Diastase, the tests being conducted both chemically and clinically.

He summarizes briefly: 1. That Taka-Diastase is the most powerful of the starch or diastatic ferments, and the most reliable, since it is more rapid in its action—*i. e.*, "it will convert a larger amount (of starch) in a given time than will any other amylolytic ferment." 2. That Taka-Diastase seems to be less retarded in its digestive action by the presence of the organic acids (butyric, lactic, acetic), and also by tea, coffee and alcohol, than are saliva and the malt extracts. This is an important point in pyrosis. 3. That all mineral acids, hydrochloric, etc., quickly stop and permanently destroy all diastatic action if allowed sufficient time, and if present in sufficient quantities. 4. That Taka-Diastase and malt diastase have, like ptyalin, no action upon cellulose (uncooked starch). All starch food should therefore be cooked, to permit of the starch ferment assisting nature in this function.

DISEASES OF WOMEN AND CHILDREN.

Prevention of Uterine Disease.—Gonorrheal infection is now generally considered as one of the most important causes in the development of diseases of the female genital organs. The starting point is usually a gonorrheal process in the vagina, which, extending upward into the uterus and tubes, gives rise to endometritis, salpingitis, ovarian disease and peritonitis, and other serious lesions of the generative organs. For this reason the treatment of the primary vaginitis in as thorough manner as possible becomes of paramount importance. According to many practitioners, copious irrigation of the vagina with hot water, and the use of Micajah's Medicated Uterine Wafers, is the most

efficient, agreeable and convenient method of accomplishing this. These wafers are not only strongly antiseptic, destroying the gonococcus, but astringent and alterative, subduing inflammation and promoting a rapid return to a healthy state.

[Write Macajah & Co., Warren, Pa., for samples.—EDITOR.]

A New Sedative in Whooping-Cough.—The use of sedatives forms an important element in the treatment of whooping-cough; for unless something is done to control the severe spasmodic attacks, the little patient may succumb from exhaustion alone. In place of resorting to the use of narcotic sedatives, such as belladonna, it is often a better plan to administer a hypnotic, which will induce refreshing sleep without any stupefying effect. Dr. Busdraghi (*St. Louis Med. Era*) gives the following valuable advice on this subject: "In a little child nothing is better than a placid sleep, durable and reparative. To obtain this in my cases I have employed trional, in doses of 0.10 to 0.50 gramme, according the age of the children. I have not seen any inconvenience from it. It has been tolerated perfectly well; the sleep has been interrupted by some efforts at coughing, but the sick child has again gone to sleep as if nothing had happened. In a few more obstinate cases I have added a spoonful of 1-per-cent. solution of chloral hydrate.

SURGERY.

Appendicitis.—Dr. Spencer Graves (*International Journal of Surgery*, May, 1898) says:

"I prefer when seeing a patient in the beginning of an attack presenting the ordinary symptoms, to treat it medicinally for a varying length of time, for the following reasons:

"1. There are cases, a small percentage, that may be relieved in this way, the appendix returning to its normal condition.

"2. In the interstitial form or in recurrent appendicitis I would prefer to operate between the attacks.

"3. The fulminating form being of such rare occurrence and often manifesting symptoms by which it may be recognized before it is too late, and being so often fatal, whether medicinally or surgically treated, I am not influenced to treat all cases as though they were of this variety.

"4. The patient is usually in a better condition for the operation after the acute symptoms have subsided. The toxemia

seems greater in the majority of cases the first twenty-four or forty-eight hours, and the patient appears to suffer more from shock during this period. I believe chloroform or ether anesthesia is more dangerous when the toxicity is great, and that they have some inhibitory action on the body cells, the serum of the blood, or the phagocytes. This deleterious action is especially objectionable at a time when nature's best efforts are required to combat the morbid phenomena.

"5. The benefits of this delay, as it seems to me, with the adoption of correct medicinal treatment, are the increased flow of serum to the seat of inflammation and the formation of adhesions in some cases which shut off the general peritoneal cavity, and the lesser risk of auto-intoxication. I believe that the peritoneum is more likely to be infected during operative procedure before this immunizing or protective process has supervened.

"6. The advantage hoped for when we would operate before the occurrence of perforation is quite often not realized in perforative appendicitis. In my experience, perforation takes place sooner than is ordinarily supposed.

The Surgical Treatment of Ophthalmic Goitre.—Dr. Doyen (*Rev. de Chir.*, 1897, No. 11) says there are but two operations which have the same end in view—the suppression of the secretion of this gland. 1. The thyroidectomy. 2. The section of the cervical sympathetic. The methods must be judged by the results produced.

One of the champions of the section of the sympathetic says:

(1) Basedow's disease is modified and also cured by this operation.

(2) The tachycardia is diminished and disappears after resection of the sympathetics.

(3) The goitre diminishes and disappears, though somewhat the more slowly than the exophthalmia.

GENITO-URINARY SURGERY.

Renal Calculus: the Difficulties and Errors in Diagnosis in their Relation to the Exploration of the Kidney: Unsuspected, Quiescent and Migratory Calculi.—Dr. Henry Morris ("The Hunterian Lectures on the Surgery of the Kidneys," *The British Medical Journal*, April 9, 1898) says:

The conclusions at which I have arrived are the following:

(1) That the aim of the surgical treatment of renal calculus should be to extend the operation of nephrolithotomy, and thereby restrict the necessity of nephrotomy and nephrectomy.

(2) That more frequently than not the failure to find a stone is not in reality a failure of treatment, because there are so many curable morbid conditions which mimic renal calculus, and which are discoverable only by exploration.

(3) That the theory that a stone in one kidney, whether that kidney is itself painful or not, reflects or transmits pain to the opposite kidney is quite unproven; that it is a dangerous theory, calculated to lead to very erroneous practice; and that the surgical principle with regard to exploratory operations should be that with pain, paroxysmal or continuous, on one side only, the kidney on the painful side should be explored.

(4) That nephrectomy for calculous conditions is not often called for, and should be done only in exceptional cases. Nephrotomy for calculous pyonephrosis is the proper operation, at any rate as a primary operation, because of the frequency of double calculous disease. Experience has shown that kidneys from which stones weighing 830 gr. and 1,300 gr. have been removed are functionally sufficient to maintain life during the blocking of the ureter or suspended action of the kidney of the opposite side.

(5) That nephrectomy whilst the opposite organ is occupied by calculus is fraught with the greatest danger to life; whereas nephrectomy, after the opposite kidney has been freed of stone, will probably be followed by recovery from the operation, and possibly by very good health for many years afterwards.

(6) That when renal calculus causes reflected or transferred vesical or ovarian pain, the removal of the calculus will be followed by complete cure of the bladder or ovarian symptoms.

(7) That in some cases renal calculous conditions are attended by very remarkable nervous symptoms, sometimes with, sometimes without, high temperature, and that information as to the cause of these symptoms is needed.

(8) That unsuspected renal calculi are a source of very real danger to their possessors; and when, whether by accident or by the systematic examination of the urine, we have cause to suspect the presence of a calculus, we should recommend its immediate removal, regardless of the fact that it is not causing renal or transferred pain.

(9) That quiescent calculus is as dangerous to the individual as unsuspected calculus, and ought to be removed by operation.

(10) That the hitherto accepted teaching, that a renal calculus, if causing only mild symptoms, or attacks of severe colic of only recent occurrence, should be treated on the expectant plan, ought to be discarded as unsound in theory and dangerous in practice.

(11) That the same principle should be applied to renal calculus which has long been the rule in regard to vesical calculus—namely, when suspected it should be searched for, when known to exist removed, without waiting in the hope that it may become encysted or spontaneously expelled.

(12) That the very low mortality of nephrolithotomy puts this operation upon the same footing for renal calculus as lithotripsy in the most experienced hands for vesical calculus.

NEUROLOGY.

Mirror Speech.—*La parole en mirror*, analogous to mirror writing, is the name given by Marcotte to a symptom observed by him in a girl twelve years of age, suffering from abscess of the brain, following an otitis. The patient was trephined when seemingly in extremis, after which operation speech again gradually returned, at first in perfectly unintelligible sentences; for example, the child said: *Quille-tran-ser-lais-me-vous-lez-vous-tan-ma*, etc. It was only after the patient was asked to write it down that it was discovered that the syllables, and even longer sentences, were pronounced in an inverse order, in such a manner that the phrases written above meant: *Ma tante, voulez-vous me laisser tranquille*. This inversion of speech persisted for five weeks. Eventually the child fully recovered.—*Berliner klin. Wochenschrift; Sanitary Era*.

DERMATOLOGY AND SYPHILOLOGY.

A Few Facts in Regard to Syphilis.—Dr. W. C. Heggie (*The Dominion Medical Monthly and Ontario Medical Journal*, April, 1898) writes: In conclusion I wish to say a few words in regard to the treatment. During the last two years it has been my privilege to see a large number of syphilitics daily at the Michigan State House of Correction, where, during that time, probably four hundred men have been treated for this disease.

My experience has been that in the true syphilitic stage mercury is the remedy *par excellence*. In the sequellæ, potassi iodi stands without a rival. Of all the preparations of mercury the bichloride easily takes the lead, especially immediately after infection. I usually begin treatment with one grain of calomel every hour till the bowels are thoroughly flushed; then put the patient on hydrarg. bichlor., $\frac{1}{16}$ to $\frac{1}{4}$ of a grain; nucis vomicæ, M10; ext. phytollacæ dec., fl. M2; aqua q. s., ad. 2 ounces. Mix. To be taken four times daily.

I begin with $\frac{1}{16}$ grain bichloride, and increase the dose till I get an apparent effect. I am not afraid of salivation; in fact, continue the remedy until mercurilization begins to develop, when the remedy is stopped and the patient put for a week or more on the vegetable alteratives. The emunctories should be kept open and a hot bath given twice a week. Any complications should be treated in the usual way, but in conjunction with the anti-syphilitic treatment. Treatment especially should be continued for at least six months after all symptoms disappear.

ORTHOPEDIC SURGERY.

Rules for Orthopedic Practice.—1. Discard the idea of rheumatism of a single joint in children (especially in the hip) unless it is positively proved by acute symptoms. Tuberculous disease is much more probable, and treatment for the graver condition will frequently abort threatened joint destruction.

2. Any child may have local tuberculosis of a joint, no matter what its ancestry; heredity signifies only degree of resistance.

3. Do not attribute to "habit" a persistent limp. An inflammatory or paralytic cause is more probable.

4. All persistently fretful infants (especially those that cry when moved) should be carefully examined for evidences of spinal spondylitis. Older children, with stubborn irritation of the lung, stomach or intestine, should always be critically examined. Early diagnosis and treatment will accomplish excellent results.

5. In lateral curvature of the spine the indiscriminate and unskilful use of mechanical appliances does harm, while to neglect these means of fixation in spinal caries is ruinous.

6. To "let alone" a curable congenital bone-deformity after the first week of life is to lose the golden opportunity for cure.—*Charlotte Medical Journal*.

BOOK REVIEWS.

"Cataphoresis," or Electric Medicamental Diffusion as Applied in Medicine, Surgery and Dentistry. By WILLIAM JAMES MORTON, M.D. 8vo., pp. 267. Illustrated. [New York: American Technical Book Co., 45 Vesey Street. 1898.

Whilst cataphoresis has been known since 1853, the principles of its application and the proper manner of procuring different results were not known until but a few years ago. In the work before us we have one written by an expert in electro-therapeutics, and one who has made the subject of electricity a deep subject. As a result of this he has produced a book which is worthy of occupying a prominent place in the library of every physician and surgeon. The author gives us his personal experiences and experiments in cataphoresis, from his first steps in 1873 up to the present time, and it is very interesting, as well as instructive, to note the rational methods which he pursued. His directions in regard to the technique which should be followed are reliable and clear, and any one interested in this new method of medicamental diffusion should not be without the work. We can heartily recommend it.

Transactions of the Southern Surgical and Gynecological Association. Vol. X. Tenth Session, Held at St. Louis, Mo., Nov. 9-11, 1897. 8vo., pp. 389. [Published by the Association. 1898.

Like all of its predecessors, this volume makes a most handsome book. Whilst this issue is not quite so large as former ones, this lack of bulk is certainly made up for by the quality of its contents. The St. Louis meeting was certainly a most successful one in every respect, and the papers read elicited quite elaborate discussions. In the volume of Transactions before us is given thirty-three radiographs of surgical conditions made by Dr. A. V. L. Brokaw. They are certainly most excellent, and quite demonstrative in character. No doubt the best paper in the volume is that on pyuria, by Dr. Howard A. Kelly of Baltimore. It is certainly destined to remain a classic for many years to come. We note with pleasure that Dr. W. E. B. Davis of Birmingham, Ala., the indefatigable secretary, has been re-elected to his position. He is the one responsible for this volume of Transactions, and he may well be proud of it, for with the help of Dornan, the well-known printer of Philadelphia, he has certainly succeeded, as in the past, in bringing out one of the handsomest volumes which it is our privilege to receive annually.

Les Premiers Soins a donner en Cas d'Accidents Subits.

Conferences du DR. FREDERIC VON ESMARCH. Tradint avec l'autorisation de l'Auteur, Sur la 12^e édition allemande par le DR. EUGENE VAN OYE. 12mo.; pp. 154. Troisième édition française. Ornée de 93 figures dano le texte. [Bruxelles: A Manceaux, 3 rue des Minimos. 1897.

FIRST AID IN CASES OF SUDDEN ACCIDENTS. By FREDERICK VON ESMARCH. Translated from the 17th German edition by DR. EUGENE VAN OYE. Third French edition, with 93 illustrations.

This little book, which has met with such an undoubted success, is, in truth, a classic little work, and deserving of more dissemination than it has yet received, although twelve German and three French editions are certainly a high tribute to the excellence of the lectures which were delivered by its distinguished author to the "Samaritan School" of Kiel. The book is the clearest and most succinct exposé of the subject whereof it treats, and it is certainly practical enough to satisfy the most hypercritical. Prof. Esmarch has certainly furnished, not only the medical profession, but all those who expect to be attendants, nurses, or be attached to hospital corps, with a manual which none should be without, and ought to adopt as a *vadé mecum*. The laity could also profit very much by a careful perusal of its contents, and be thereby enabled to render first aid to the injured, and perhaps avert serious results. We only repeat that the work has not been popularized in English.

A Practical Text-Book on the Diseases of Women. By ARTHUR H. N. LEWERS, M.D., London. 12mo., pp. 526. Fifth Edition, with 174 Illustrations, four Colored Plates, and 71 Illustrative Cases. [Philadelphia: P. Blakiston, Son & Co. 1897. Price, \$2.50.

This edition makes ten thousand that have been printed of this text-book, and we do not wonder thereat. It is of a very convenient size, thorough in its treatment of the subject, and analytic in its methods. Throughout are interspersed illustrative cases of value and practical applicability, which cannot fail to impress the student. One particularly interesting case is that which the author states was the only one of the kind which ever occurred in his case. It is one of deciduoma malignum. It is certainly deserving of more than ordinary attention, not only on account of its rarity, but for the masterly presentment of the case which we find in the book. This text-book is certainly destined to achieve as much popularity in this country as in England, directly it becomes known, for its intrinsic merits are such that it will easily take a front place.

Modern Gynecology. A Treatise on Diseases of Women, Comprising the Results of the Latest Inventions and Treatment in this Branch of Medical Science. By CHARLES H. BUSHONG, M.D. 8vd., pp. 404. Illustrated. Second Edition, Enlarged. [New York: E. B. Treat & Co. 1898.

The publisher has placed this volume in his list of medical classics, and deservedly so. It is eminently practical in character, and it is, above all, thoroughly up to date. That it created a demand for itself is evidenced by the fact that a second edition has been demanded. We are pleased to note the success which it has achieved, and we are certainly safe in predicting that ere long a third edition will be demanded. The improvements made, and the additions which are found in the edition before us, have certainly greatly added to its value.

Retinoscopy (or Shadow Test) in the Determination of Refraction at One Meter Distance, with the Plane Mirror. By JAMES THORINGTON, M.D. Second Edition. Revised and Enlarged. 12 mo., pp. 72. Thirty-Eight Illustrations, Twelve of which are in Colors. [Philadelphia: P. Blakiston, Son & Co. 1898. Price, \$1.00 net.

It is just one year since the first edition of this book appeared and a second one has already been demanded. In this the author has not only enlarged the text, but has added colored pictures, and done much to elucidate the text and simplifying it so as to make it more easily understood. The book is certainly one deserving of popularity, and one which can be safely recommended to all students and practitioners of ophthalmology.

Yellow Fever. Clinical Notes. By JUST TONATRE, M.D. (Paris). Translated from the French by CHARLES CHASSAIGNAC, M.D. 12mo., pp. 276. [New Orleans: *New Orleans Medical and Surgical Journal*, Ltd. 1898.

This little book has not appeared in French, but was written in that language by the author on account of his greater familiarity with the language, and was translated for its first publication. As the title indicates, it consists of clinical notes. The author is a firm believer in Sannelli's researches on the micro-organism of yellow fever, and his treatment is based on that assumption. A feature of the book is the list of thirty-five temperature charts of various types of the disease. A very useful chapter is that devoted to the subject, "What Not to Do." Altogether it is quite an interesting little book.

LITERARY NOTES.

Books Received. The following books were received during the past month and are reviewed in the present number of the JOURNAL:

"Cataphoresis," or Electric Medicamental Diffusion as Applied in Medicine, Surgery and Dentistry. By William James Morton, M.D. 8vo., pp. 267. Illustrated. [New York: American Technical Book Co., 45 Vesey St. 1898.

Transactions of the Southern Surgical and Gynecological Association. Vol. X. Tenth Session, held at St. Louis, Mo., Nov. 9-11, 1897. 8vo., pp. 389. [Published by the Association. 1898.

A Practical Text-Book on the Diseases of Women. By Arthur H. N. Lewers, M.D., London, Eng. Fifth Edition, with 174 Illustrations, 4 Colored Plates, and 71 Illustrative Cases. 12mo., pp. 526. [Philadelphia: P. Blakiston, Son & Co. 1897. Price, \$2.50 net.

Modern Gynecology. A Treatise on Diseases of Women, Comprising the Results of the Latest Investigations and Treatment in this Branch of Medical Science. By Charles H. Bushong, M.D. 8vo., pp. 404. Illustrated. Second Edition. Enlarged. [New York: E. B. Treat & Co. 1898.

Yellow Fever. Clinical Notes. By Just. Tonatre, M.D. (Paris). Translated from the French by Charles Chassaignac, M.D. 12mo., pp. 206. [New Orleans: *New Orleans Medical and Surgical Journal*, Ltd. 1898.

Les Premiers Soins à donner en Cas d'Accidents Subits. Conférences du Dr. Frederic von Esmarch. Traduit avec l'autorisation de l'Auteur, sur la 12^e édition allemande par le Dr. Eugène Van Oye. 12mo., pp. 154. Troisième Edition française. Ornée de 93 figures dans le text. [Bruxelles: A. Manceaux, 3 rue des Minimes. 1897.

Retinoscopy (or Spadin's Test) in the Determination of Refraction at One Meter Distance, with the Plane Mirror. By James Harrington, M.D. Second Edition, Revised and Enlarged. 12mo., pp. 72. Thirty-eight Illustrations, Twelve of which are in Colors. [Philadelphia: P. Blakiston, Son & Co. 1898. Price, \$1.00 net.

Transactions of the Medical Society of the District of Columbia from January, 1897, to December, 1897, Including the Annual Address of the President, Dec. 15, 1897. Vol. II. 8vo., pp. 217. [Printed 1898.

Clinical Report of the Rotunda Hospitals for One Year, Nov. 1, 1896, to Oct. 31, 1897. By R. Dancer Purefoy, M.D., Master; T. Henry Wilson, Henry Jellett, R. P. R. Lyle, Assistant-Masters. 8vo., pp. 51. [Dublin: Printed by John Falconer. 1898.

Transactions of the Medical Society of the District of Columbia from January to December, inclusive, 1897, form a handsome volume, which is well printed. The address of the president, Dr. S. C. Busey, is certainly a thoughtful and well-considered document. Throughout the volume the papers are of a superior order, and the discussions more than ordinarily good. The manner in which this is presented is excellent, and is due to the efforts of Drs. W. W. Johnston, Geo. M. Kober and Jas. D. Morgan, the efficient editing committee. The society can certainly feel proud of its Transactions.

The St. Louis Medical Gazette has appeared, its initial number bearing the date June, 1898. It is large octavo in size, and contains 44 pages of well-edited reading matter. Dr. Martin F. Engman is managing editor, and C. R. H. Davis publisher. Its subscription price is \$1.00 a year in advance. It is a monthly, whose purpose is to give papers and abstracts on medicine and surgery. A corps of good collaborators is on the staff, and if we are to judge from the first number, the *Gazette* will be a success.

Illustrierte Rundschau der Medicinisch-Chirurgische Jechnik is a quarterly recently begun in Berne, Switzerland. Its first number contained 104 pages, well illustrated and excellently edited by a large corps of contributors under the direction of Dr. Gustav Beck, who is well known as the founder of several successful German and French journals. The price of the one before us is 10 marks annually.

An Interesting Engraving.—There has just been issued a handsome engraving of an old painting of the first meeting of the Medical Society of London, which was held in 1773, and it contains portraits from life of the most prominent of the original members.

Among those represented are: Edward Jenner; William Saunders, whose work on "Diseases of the Liver" was the authority for many years; John Aikin, a noted miscellaneous writer and the publisher of a "General Biography;" William Babington, author of a "New System of Mineralogy" and one of the founders of the "Geological Society;" Thornton, author of a "Philosophy of Medicine;" Edward Bancroft, a naturalist; Robert Hooper, who published a "Medical Dictionary;" and a number of other famous men of their day.

As this was probably the first medical society on record, and was the predecessor of the British Medical Society, the engraving represents an event of much interest to every member of the medical profession, and should prove an attractive addition to the walls of the office or home.

A copy will be mailed to any physician applying for it, by the proprietors of the Tongaline preparations, the Mellier Drug Company, No. 2112 Locust street, St. Louis.

Clinical Report of the Rotunda Hospitals is certainly most interesting as well as well written. The Dublin Rotunda Lying-in Hospital has been celebrated for many years, and its record has been a most enviable one. The amount of work done may be judged from the fact that during the year 1896-97 there were 1,825 cases admitted, of which 1,448 were delivered. Of this number, 2 died—a truly remarkable record. In the external maternity the total number of cases was 2,007, and of this 5 died. There were 19 cases of twins, 2 of triplets, 37 forceps cases. In the Gynecological Department 528 were admitted for treatment. It will be seen from these figures that there is a deal of work, and the results certainly show that it is intelligently applied. The report is one replete with valuable information, and too much praise cannot be accorded to Dr. R. Dancer Purefoy, the Master, and the Assistant-Masters, Dr. T. Henry Wilson, Henry Jellett and R. P. R. Lyle.

MELANGE.

Examination of Military Surgeons.—The candidates for commissions in the volunteer army have not had an easy time of it, and many have been left by the wayside.

The following questions were asked the candidates for admission to the medical corps of the army at a recent examination at Chicago.

Surgery and Anatomy.—1. Detail the treatment of a recent case of compound fracture of the leg.

2. Describe the different kinds of acute synovitis and outline treatment for each.

3. When should you wait for a line of demarcation in gangrene before amputating?

4. From what vessels might hemorrhage come in a wound of upper thigh?

5. Enumerate the coverings of an oblique inguinal hernia.

6. Name the flexors of the forearm and give points of origin and insertion.

Practice of Medicine.—1. Describe pneumonia. Definition. Etiology. Morbid anatomy. Symptoms. Complications. Prognosis. Termination. Diagnosis. Treatment.

2. Describe dysentery. Definition. Etiology. Clinical forms. Complications and sequelæ. Treatment.

3. Describe yellow fever. Definition. Etiology. Morbid anatomy. Symptoms. Diagnosis. Prognosis. Prophylaxis. Treatment.

Materia Medica.—1. What are the more common forms of mercury used in medicine? Write prescriptions for four.

2. Mention the comparative advantage of ether and chloroform as anesthetics.

3. Indications for the use of emetics, cathartics and alcohol.

Hygiene.—1. Give your ideas on the selection and sanitation of camps.

2. The prophylaxis and treatment of sunstroke.

3. How would you determine in the field, in a general way, the salubrity of the water supply, and what measures would you take for preventing its pollution?

Military Surgery.—1. Give method of treating (temporary) gunshot fracture of the thigh on the field, and when and how would you remove the patient?

2. What is the effect produced by the modern small, jacketed bullet compared with the old large-caliber missile?

3. Give method of procedure in rendering first aid to and removal of wounded from fighting line to field hospital.

Dr. G. Frank Lydston, of Chicago, is now Surgeon and Major of the 2d Regiment, having passed the highest examination and received the best grade over forty candidates. He always was swift.

American Medical Association.—After a warm discussion the convention refused to admit the New York State Medical Association, which does not accept the Code of Ethics of the American Medical Association.

Columbus, O., was to-day chosen as the next place of meeting on June 7, 8, 9 and 10, 1899.

The following officers were elected: President, Joseph McDow-

ell Matthews, of Louisville; first vice-president, W. W. Keen, of Philadelphia; second vice-president, J. M. Graham, of Denver; third vice-president, H. A. West, of Galveston; fourth vice-president, J. E. Minney, of Topeka, Kas.; secretary, Wm. B. Atkinson, of Philadelphia; treasurer, Henry P. Newman, of Chicago; librarian, G. B. Webster, Illinois; board of trustees—Alonzo Garcelon, of Maine; I. N. Love, of St. Louis; H. I. E. Johnson, of Washington, D. C.; T. J. Hoppell, of Tennessee; judicial council—S. S. Bayley, of Iowa; D. R. Brower, of Illinois; N. S. Davis, of Illinois; H. D. Didama, of New York; D. M. Mason, of Washington; T. T. Rogers, of Rhode Island; M. B. Burd, of Missouri, and W. S. Jones of New Jersey.

Lecturers for 1899: On "Medicine," J. C. Wilson, of Philadelphia; on "Surgery," Floyd McCrea, of Atlanta, Ga.; on "State Medicine," D. R. Brow, of Chicago.

Various sections have elected officers as follows:

State Medicine.—President, Arthur R. Reynolds, Chicago; secretary, W. P. Munn, Denver.

Stomatology.—President, George I. Brown, Milwaukee; secretary, Eugene S. Talbot, Chicago.

Cutaneous Medicine and Surgery.—President, W. T. Corlette, Cleveland; secretary, J. M. Blaine, Denver.

Diseases of Children.—President, Henry E. Turley, Louisville; secretary, J. L. Booker, St. Louis.

Surgery and Anatomy.—President, W. J. Mayo, Rochester, Minn.; secretary, M. L. Harris, Chicago.

Physiology and Dietetics.—President, J. Weir, Jr., Owensboro, Ky.; secretary, Lee Palin, Leadville, Colo.

Obstetrics and Diseases of Women.—President, A. H. Cordier, Kansas City; secretary, W. G. Haggard, Jr., Nashville.

Practice of Medicine.—President, Frank Billings, Chicago; secretary, Carroll A. Edson, Denver.

Ophthalmology.—President, Gasey A. Wood, Chicago; secretary, A. H. Williams, Boston.

Materia Medica, Pharmacy and Jurisprudence.—President, T. H. Stuckey, Louisville; secretary, Leon L. Solomon, Louisville.

Laryngology and Otology.—President, B. A. Randall, Chicago; secretary, Emanuel Meyer, New York.

MISCELLANEOUS NOTES.

Syphilis.—When a patient presents himself for treatment, he should be placed upon the following recipe (which fully meets all indications) until the symptoms disappear, his appetite is improved, and a general feeling of vigor and activity exists:

℞ Hydrag. Bi-chlor..... 2 grains.
Iodia..... 6 ounces.

M. Sig. One teaspoonful after each meal.

Iodia is prepared by Battle & Co., St. Louis, and contains extracts from the green roots of stillingia, helonia, saxifraga and menispermum. Each fluid drachm also contains five grains iod. potass. and three grains phosphate of iron. The tendency of the profession is too much towards discarding everything but mercury. I have often seen mercury alone, or combined with iod. potass., fail to heal secondary ulcerations, which speedily disappear when combined with vegetable alteratives. It is, therefore, best to have the good effects of the only three reliable remedies at once, viz., mercury, iodide and vegetable alteratives (which is obtained in the above prescription).—Lectures on Venereal Diseases, by W. F. Glenn, M.D., Clinical Professor of Genito-Urinary and Venereal Diseases, Medical Department, Vanderbilt University.—*Southern Practitioner*, May, 1898.

Sanmetto in Incontinence of Urine.—I used Sanmetto in a case of a lady forty years of age, who could not retain her urine more than one hour, for years. She had been under treatment before, without any remarkable result. I put her on teaspoonful doses of Sanmetto four times daily, and her improvement was very marked, and she is now practically cured. I desire to keep Sanmetto on hand as there is nothing better to fill its place in such cases.

Milwaukee, Wis.

FRED A. GOEDECKE, M.D.

Mistura Creosote Comp.—MR. CHAS. KILGORE.—*Dear Sir:* I have used two bottles of your Mistura Cresote Comp. upon a patient who first had an attack of pleurisy, followed by double pneumonia caused by exposure after the first attack. Adhesions formed, and for two years he was unable to perform any labor. I finally put him upon your Mistura Creosote Comp. He has now fully regained his strength, flesh restored, and all pain in side gone. I am more than pleased with the results obtained from the effects of your Mistura Creosote Comp. I speak thus freely because the patient is an only son of mine. I have never made use of your tablets. Anything you may be pleased to send me I shall certainly use in my practice. Very truly,

A. R. GOODRICH, M.D.

Nervous Prostration.—My son, aged 12, had been growing nervous over the shock of his brother's death, and seemed to derive no benefit from any remedies used in his case. Had him to the seashore, change of surroundings and everything that could be done for his benefit, he still grew thinner and worse all the time. I put him on Celerina, and had marked benefit before the first bottle was used, and he has almost entirely gotten over it with the help of another bottle I got for him. I consider it a very nice and efficient nervine, just the thing for the children and nervous and delicate persons, where there is great prostration. I shall use it freely.

Moosic, Pa.

N. P. FRASSONI, M.D.

Why Hagee's Cordial Gives Results.—The reason why Hagee's Cordial gives results is that it contains all the active constituents of Cod-liver Oil, derived from the liver of the Cod. It also contains Hypophosphites of Lime and Soda that prevent waste of tissue and promote constructive tissue metamorphosis.

Campho-Phenique.—This preparation commends itself to the medical profession for the following reasons:

1. Because it is the result of scientific experimentation by scientific men.
2. Because the tests as to its efficiency as a germicide were conducted in a scientific manner by scientific chemists and bacteriologists.
3. Because the preparation was introduced to the medical profession in a proper ethical manner, and without exaggerated claims and unprofessional horn-blowing in the journals and newspapers.

A. C. BERNAYS, A.M., M.D., M.R.C.S.

Action of Syrup of Figs.—The action of senna combined with figs is to slowly but effectively evacuate the lower bowels and rectum. This it does without undue liquefaction of the stools, leaving them in a formed condition; thus daily exercising the muscular activity of the lower intestinal tract, ultimately enabling it to do its own work. California Fig Syrup is pre-eminently a laxative and not a cathartic. Abundant clinical experience has shown that it does not become progressively inefficient and will not enslave the condition of the bowels so that chronic constipation supervenes. This is an objectionable feature to many other laxatives and cathartics. The purpose of California Fig Syrup is to coax and not to coerce nature, and it is the opinion of practitioners generally that it admirably fulfills this unction.

Pinus Canadensis.—F. A. Rew, M.D., Imboden, Ark., says: My experience with S. H. Kennedy's Extract of Pinus Canadensis was so decidedly satisfactory and gratifying that I prescribed it with a positive assurance that benefit will follow its use. On the principle that "all astringents are tonics," I use the Pinus Canadensis, in small doses, in pneumonia, bronchitis, typhoid fever; indeed, where the mucous membranes need a tonic, and recognizing the similarity between mucous membranes and the external skin, I use it in erysipelas, nervous forms of eczema, and wherever the skin needs a tonic. It is all I need in many cases of ophthalmia and gonorrhea. Its special therapeutics would fill many pages, and I am satisfied that we will yet find new uses for it.

True Americanism.—Physicians and pharmacists, like the masses of the people, have tired of the arrogation of superiority implied by the announcements of foreign manufacture, and are revolting against them. The spirit is especially commendable at the present time, when a vast wave of patriotism is rolling over the land, making the North and the South, the East and the West, as one band of brothers by its magic influence. The Antikamnia Chemical Company of St. Louis, in all of its advertising matter, whether through the journals or by circular, takes particular pains to impress upon physicians and pharmacists that its goods are made in America, by Americans, and for American use. This enterprising Company realizes that the words "made in Germany" or "made in France" no longer possess the influence and meaning they once had. The people of this country no longer scorn or underrate the products of their own native laboratories and work shops.—*The National Druggist.*

THE ST. LOUIS Medical and Surgical Journal.

Whole No. 692.

VOLUME LXXV. — AUGUST, 1898. — No. 2.

ORIGINAL COMMUNICATIONS.

THE THERAPEUTIC VALUE OF LACTOPHENIN.*

BY CARL STERNBERG, M D.

Attached to the IV. Clinical Department (Dr. Schulz, Chief) of the K. K. Wiener
Allgemeinen Krankenhaus.

It is not surprising that a new remedy, introduced as an anti-neuralgic and anti-pyretic, is now-a-days received with a certain degree of incredulity by the medical profession; the number of such introductions has increased enormously of late, while only few are permanently added to our materia medica. Nevertheless, it is without question that the new products offered by the chemist and manufacturer must all be tried; because of much that is useless something valuable will be found now and then, and we will thereby be reimbursed for all our trouble and time. Our pharmacopeia is not too rich in active drugs, and additions to same will always be serviceable.

Taking this view of matters we willingly undertook the trial of a new antipyretic, lactophenin, particularly as several very warm recommendations had already been published.

Prof. Jaksch, of Prague, for instance, praised the remedy as specially suitable in treatment of typhus abdominalis,† having

*Translated from *Wiener Allgemeinen medicin. Zeitung*, Vol. XXXIX.

†Prof. Dr. R. v. Jaksch: "Ueber die Behandlung des Typhus abdominalis mit Lactophenin," *Centralblatt fuer innere Medizin*, 1894, No. 11; and "Therapeutische Mittheilungen über den Typhus abdominalis," read before the Verein deutscher Aerzte, Feb. 23, 1894 (*Prag. Medizin Wochenschr.*).

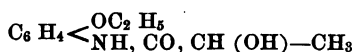
observed from doses of 0.5 to 1.0 gm., prompt but gradual lowering of temperature, followed by an equal gradual rise. In addition, von Jaksch ascribes to the drug an exceptionally soothing effect, which had a very favorable influence on the patients, and even delirium disappeared, while the sensorium was entirely relieved. Prof. v. Jaksch noted no unfavorable side effects from Lactophenin.

Dr. Landowski, in his report on the action of lactophenin,* particularly emphasizes the anti-neuralgic effect of this drug. He employed it in a case of ischias and in several cases of headaches and migraine attacks, always—despite comparatively small doses—with most favorable results.

Dr. Gissler,† medical councillor in Pforzheim, praises the anti-pyretic action of lactophenin, and also commends its anti-neuralgic and hypnotic effect; he also failed to experience ill side-effects from lactophenin, with a single exception, in which collapse followed a dose of the drug.

The report of Dr. Jaquet‡ is also very favorable, the author confirming the fact that lactophenin produces a prompt decline of temperature, without unfavorable symptoms or collapse. He, however, lays special stress on the hypnotic effect which accompanies the anti-pyretic action of lactophenin, mentioning that this effect is accomplished with large doses (at least 1.0 gm.). Jaquet even succeeded in dispelling delirium tremens with appropriate doses of lactophenin.

With these reports as basis, we undertook our experiments with this drug. Lactophenin is a lactic acid, derivative of parphenetidin, hence a phenacetin in which the acetic acid-bound to ammonia is replaced by lactic acid. The chemical formula of the product is:



It is a crystalline, glistening, white powder, having a slightly bitter taste, and soluble with difficulty in saliva and pure water; 1.0 gm. lactophenin will dissolve in 300 ccm. water, but more readily in 10 ccm. absolute alcohol, and the latter solution can

*Dr. Landowski: "Ueber die schmerzlindernden und schlafbringenden Wirkungen des Lactophenin."—Report from Hôtel Dieu, of Paris.

†Dr. Gissler: "Zur Typhus-therapie."—*Aerztliche Mittheil.*, a. u. f. Baden, 1894, No. 10.

‡Dr. A. Jaquet: "Ueber die Wirkung des Lactophenin," from the clinic at Basel.

be diluted to 50 and even to 25 per cent. without precipitating the lactophenin. It follows from these facts that it is most advisable to administer lactophenin in powder form in wafers (or capsules).

Prof. Dr. Schmiedeberg of Strassburg experimented with lactophenin on animals, concluding from the results that it, in common with other preparations of the antipyrin and phenacetin groups, induces a prompt reduction, especially of abnormally stimulated body temperature. At the same time it induces a condition of hypnosis, and a considerable reduction of pain; while in rabbits it is possible even to entirely suppress sensibility and motility and to depress reflex irritability to a minimum with lactophenin. Heart and lungs show no variations in their functions.

Lactophenin certainly exerts a calmative effect in a high degree; and Schmiedeberg compares this condition with urethans-narcosis.

We now endeavored, first, to test the antipyretic effect of lactophenin; and on the basis of Prof. v. Jaksch's report we selected a severe case of typhoid (in second relapse, or in his third fever attack at the time) for trial. The temperature had been nearly stationary for three days at a high degree (39.6 to 40.0° C.=103.28 to 104° F.); with cold packs the temperature could be reduced 1°, but after an hour the thermometer would again show nearly the former high degree. We administered the first dose of 0.5 gm. lactophenin at 6:30 P.M., temperature 39.6°; at 7:30 the temperature was unchanged; at 8:30 o'clock, 38.9°; at 9 o'clock, 38.4°; and it was 11 o'clock before the temperature again rose to 39.2°, and remained at this degree throughout the night. The next morning at 11 o'clock, temp. 39.2°, we administered 0.5 gm. lactophenin, repeating the dose at 12 o'clock noon, temp. 38.9°; at 4 o'clock temp. was 38.1°; and from 5 o'clock it rose again gradually, until it reached 39.4° at 10 o'clock P.M.

This showing encouraged us to proceed directly with larger dosage; on the following day at 2 o'clock afternoon, temp. 39.5°, we gave 1.0 gm. lactophenin; at 6 o'clock temp. was 37.5°, or 2° in four hours; not until 10 o'clock P.M. did the temperature rise to 39.0° again. On the next day, with the same dose of 1.0 gm. at 6 o'clock P.M. (temp. 39.0°), we reduced the fever to 36.4° up

to 12 o'clock midnight. In this case we continued the doses of 1.0 gm., and secured regularly a prompt and considerable temperature decline. Patient tolerated the drug well, and—aside from copious perspiration after each dose—he experienced no noticeable side-effects; the pulse after each dose became fuller and slower. The greatest temperature declines noted in this patient reached 36.4°, and 36.2°; only once was there noted an abnormally lower degree—without causing untoward symptoms, however. Having discontinued treatment for several days, we resumed with a 1.0 gm. dose at 5 o'clock P.M. (temp. 38.4°, and at 6 o'clock P.M. the thermometer showed 36.9°. and at 8 o'clock 35.5° (95.9° F.). The pulse was not noticeably changed. Slowly the temperature rose again, showing 36.5° at 6 o'clock in the morning, and holding this degree through the day. As stated, this degree of decline stands alone in the whole series of our observations, although we tested the antipyretic action of lactophenin over a wide range of febrile diseases, including several cases of pneumonia and pleuritis, one of sepsis, six of rheumatism, six of florid pulmonary tuberculosis, etc.

Our dosage was graded so that we usually gave 1.0 gm. lactophenin where the temperature was about 38.8°, and 0.5 gm. under 38.8°, duly considering the condition of each patient also. If the powder did not act satisfactorily, we repeated the dose of 0.5 or 1.0 gm. after about two hours. In most cases a dose of 1.0 gm. sufficed to reduce the fever, with a decline of 1 to 2 or 2.5° in the temperature. In the majority of cases the ingestion of a powder was soon followed by profuse perspiration, the temperature continued at the initial degree for about an hour, even rising one-tenth degree (0.1°) in a few instances, and then it gradually declined. Patients did not experience headache, nor lassitude, nausea, etc., but tolerated the powder well and repeatedly stated that they felt exceptionally good.

In a few cases, under comparative control, 1.0 gm. lactophenin produced a drop in temperature much more promptly than from cold pack. For instance, in a case of florid pulmonary tuberculosis, showing a temperature of 39.0 to 39.5° during afternoon or evening, 1.0 gm. lactophenin regularly reduced the temperature to 37.5° in the course of three hours, and then to 37.0° during the next three hours; while on applying the cold pack to same patient under the same general conditions, the drop

was only from 39.4° to 38.8°, continuing at this degree throughout the night, and going to 37.0° only at 6 o'clock the next morning.

Incidental to these trials, we observed that the drug exercised an analgesic effect, and we therefore employed it for this purpose. In a case of rheumatic pains in the sacral region, in the left arm and leg, salicylic acid accomplished only slight improvement, and its use had to be suspended because patient, having taken 18 gm., after five days complained of tinnitus aurium, deafness, headaches, and dizziness. We now gave the patient two doses of 1.0 gm. lactophenin, but without marked effect; then the dosage was doubled, 4.0 gm. per day, and improvement followed rapidly, so that patient, completely relieved, left the hospital after twelve days. The administration of 4.0 gm. per day in four 1.0 gm. doses, in this and in other cases under our observation, did not cause the least harmful side-effect; the temperature was maintained constantly at between 36.5 and 37.2°.

We employed lactophenin in six cases of articular rheumatism, but were not satisfied with the results. The best showing was made in a boy of 13 years, three joints affected; 0.5 gm. lactophenin accomplishing complete relief in four days. In the other cases (all very severe, with five and more joints affected) the drug did not act as well. Small doses (up to 2.5 gm. per day) proved altogether useless, but on giving 4 to 5 gm. per day improvement followed. The course of these cases under treatment was slow and dragging, and repeatedly on reducing the dosage pain in the joints would reappear. Nevertheless, although the treatment was protracted, cures were finally accomplished; whether or not relapses occurred I could not ascertain. It is possible that better results could have been secured if we had employed large doses from the start. I am inclined to believe it possible, because we had a patient, present in the hospital on account of another disease, who had suffered twice before from severe attacks of articular rheumatism; while under treatment in our section he suddenly experienced pain and swelling in several joints; we gave him 4.0 gm. lactophenin (in divided doses) and these symptoms disappeared entirely within twenty-four hours and did not reappear. This experience might serve to explain the less favorable results on smaller dosage in former cases, and will prompt continued trials; salicylic acid also demonstrates its wonderful effects only after large dosage.

Lactophenin, like salicylic acid, has no effect on the accompanying heart symptoms. It must be noted also that in several cases where patients complained of very severe pains in the joints, the pain ceased after taking lactophenin, but the swelling was not reduced; in such cases the pains returned after three or four hours.

In numerous other cases, for instance, one of migraine, one of ischias, one of progressive paralysis, etc., where patients complained of terrible headaches, the analgesic effect of lactophenin proved reliable and valuable, such pains disappearing after taking 1 to 2 gms. of the drug.

There is another, a third property of lactophenin—namely, its sleep-producing, hypnotic effect. We had frequent opportunity to observe this, and in no case in which it was used as hypnotic did lactophenin fail us. In one case of tuberculosis, with atrophy of the brain, the effect was surprising; the patient was violently delirious, and his actions were such that his transfer to the psychiatric section was contemplated. We gave him 3.0 gm. lactophenin in three doses of 1.0 gm. each, without noticeable effect; but on repeating this dosage the next day a deep sleep ensued, continuing through the night and all of the following day. Patient had to be aroused at meal times, but ate very little and continued his sleep. During continuance of the treatment patient was much more quiet, and when necessary 1.0 gm. lactophenin sufficed to induce sleep.

In many other cases we succeeded in inducing sleep with lactophenin, but usually larger doses (up to 3.0 gm.) were necessary. In four cases we were enabled to dispel dizziness and completely soothe such patients with lactophenin.

Our patients all took the drug cheerfully, it was well tolerated by them, and they frequently requested that we give them "the powder," as it made them feel well and assured them of a peculiar, indescribable feeling of bodily comfort. Even 2.0 gm. doses were well tolerated; but one of my colleagues, who tried the drug on himself, imparted these details: He was attacked one day by exceedingly severe pains in the dorsal musculature and sacral region; the pain robbed him of his appetite, so that he ate nothing from 2 o'clock of one afternoon until 10:30 the next forenoon. As the pain continued unabated he took 2 gm. lactophenin at the latter hour (on an empty stomach); fifteen minutes later he experienced a dull pressure in his head, great ex

haustion and dizziness, so that he was obliged to go to bed; the pulse was distinctly slower, tension and pulse-wave quite low. He slept soundly at once, and when awakened two hours later he felt entirely well; his head was free, and he felt most agreeably comfortable; the pains had disappeared altogether, but renewed in milder degree the next day, then disappeared quickly and finally without further medication. This case is the only one in our experience in which lactophenin ingestion was followed by a condition akin to collapse, and here recovery was prompt, and brought with it full cure.

As mentioned before, we noticed in most cases that the ingestion of lactophenin was followed soon by profuse perspiration; the changes in temperature have been indicated; the pulse became slower and fuller in many cases; no changes showed in the blood; the urine responded to the indophenol reaction* with paramidophenal, and to Dragendorff's reaction,† although the latter cannot always be shown.

In conclusion, we can therefore say that our experiments have fully confirmed all claims for lactophenin. The antipyretic effect is unusually prompt; and in this respect the drug is preferable to the cold pack, as the temperature is lowered in more comprehensive degree, and both patients and attendants prefer taking a simple powder to going through the complicated procedure of an ice pack. Among the various antipyretics lactophenin takes a leading place, because it possesses the property, besides the antipyretic effect, of anti-neuralgic and hypnotic action, which is especially valuable in treating feverish and delirious diseases. As regards its effect in rheumatic conditions, our results were unfavorable; but we cannot give a definite opinion, as the number of cases observed was too small. At any rate, our experience justifies the belief that in cases of rheumatism where salicylic acid is unsuccessful lactophenin should be preferably substituted.

*The urine is boiled a few minutes with one-fourth volume muriatic acid to replace the sulphuric-ether acids; then extract the paramidophenol from the mildly alkaline urine with much ether, or utilize same at once for the indophenol reaction; the urine, on cooling, is mixed with a few ccm. 2-per-cent. phenol solution, and a little dilute chromic acid, chloride lime or iron chloride is added. If amidophenol is present the solution turns red, and on saturating with ammonia the filtrate turns a beautiful blue (Communication of Huppert).

†Dragendorff's Reaction: Boil the urine with one-fourth volume muriatic acid, and allow to cool. From this preparation chloroform or amyl alcohol will assume a beautiful red coloring matter. Sometimes the extract is colorless, but turns red on exposure to the air.

With regard to dosage, Dr. Landowski mentions 0.6 gm. as medium, 1.0 gm. as maximum, and 3.0 gm. as daily dose; our experience shows that generally 1.0 gm. will prove a safe average dose, and that 2.0 gm. single and 5.0 gm. daily dosage will not exceed the maximum permissible.

An Eulogy.—We read the following in the *Indiana Medical Journal*:

“The Etiology and Therapy of Diphtheria: a Plea for the Vito-Chemic Cause of Disease versus the Microbic Theory and Treatment by Animal Serum,” is the title of a long essay by Dr. Elmer Lee, A.M., M.D., Ph.B., of New York. There are other titles in evidence, but it is safe to say that Dr. Elmer Lee will never disport them again. For a physician all of whose writings are in opposition to the whole trend of medical science will scarcely be made vice-president of the American Academy of Medicine and chairman of the section on State Medicine of the American Medical Association, etc., the second time. State medicine, indeed! The greatest advances in State medicine have been along the very lines Dr. Lee opposes—the full admission of the bacillary origin of the infective diseases.

Dr. Lee read a paper at the Atlanta meeting in the Section on Cutaneous Diseases, advocating the treatment of primary syphilis with colored water only! And also a paper before the Medical Section opposing the antitoxin treatment of diphtheria, and stating that at the Philadelphia meeting he would substitute for the serum treatment a certain and a scientific method. Surely there is a wonderful tolerance and courtesy among physicians, as is shown in the wide hearing and positions given such erratics as Drs. Woodbridge and Lee. But medical science is like the ocean tide—it goes resistlessly on like the stars, unhesitating and unrelenting. The opponents of any science should be given courteous hearing, for truth will prevail over any and every personality. It should be mentioned that Dr. Lee's recent article, which he has courteously sent this journal, is in the April (1898) issue of the *New York Medical Times*, and also that he has left Chicago and lives in New York, thus affording him a larger field for the dissemination of his vito-chemic and liquid aberrations. In so great a metropolis he will find a few sympathisers, until he is swallowed up in neglect and forgetfulness.

THE NERVOUS SYSTEM AND ITS DISEASES.*

BY WM. HENRY, M.D., HARMON, ILL.

The nervous system and its phenomena are not well understood. Many have been the theories in regard to its workings.

The brain and spinal cord are the main trunk of the nervous system; from this trunk all of the main branches and filaments have their origin. The brain and spinal cord are the main battery of all of those electric cords that are distributed through the animal economy, or of every living and moving creature, keeping them in motion; for without this the whole physical economy would be dead, there would be nothing to keep up vitality; sever one of the main wires, so to speak, and you sever both sensation and motion.

In these cords there are intermingled both fibers of motion and sensation. The one may exist without the other; there may be perfect motion without sensation, or there may be sensation without motion. In the case of neuralgia, sensation is abnormally increased without affecting motion. In the case where there is entire paralysis of motion, the nervous supply is cut off from the main trunk, destroying vitality; hence we have atrophy of the parts, even death; the circulation of the blood is cut off, the vital fluid leaving the parts cold and dead. Where there is partial paralysis of the part there will be an atrophic condition, not dead, but cold and weak.

The electricity carried by these wires, so to speak, keeps the physical frame warm, increasing vitality, giving vim and vigor to the parts. There are two kinds of electricity traveling in these fibers: the one producing heat and sensation, the other heat and motion.

The person who has a normal amount of electricity in his system withstands the attack of disease, destroying or holding that in check which produces disease.

In the case of tubercular disease the amount of electrical fluid in the system is low, vitality is low; therefore we have a cold, flaccid physical condition and decay of vital parts; it may be the lungs, brain, intestines, or muscles, or the physical frame as a whole.

When there is shock to the system there may be in the one case too much electric fluid, in the other case there may be too

*Read before the R. R. V. Med. Ass., June, 1898.

small an amount; in either case it will produce abnormal effect upon the system.

In the case of high fever there is too much developed electricity in the nerves, producing too much heat, burning the vital fluid; the heat drives the current of the vital fluid too fast, causing an excited condition of the whole system; the nerves are at a great tension, and if carried too high may destroy vitality, entirely by burning up the fluid's vitality.

We are told that disease is caused by bacilli or microbes. If there is a normal amount of electric fluid in the nervous system, there may be as many microbes as the system will hold and there will be no disease. We could not live if our systems were not filled with infusoria. It is that which keeps every part in motion.

Theories are all well enough, and may seem plausible, but facts are what talk.

The cause of tuberculosis is the low amount of magnetic fluid in the system, which lets the disease have full sway in the system, causing decay of the parts.

Draw all the electricity from the living economy, and what will you have? Dead nerves, dead tissue, and decay. This electric fluid is what keeps up the tension in the nerves and keeps the parts in working order.

The nerves are like strings on a stringed instrument. Make them too tight and the tension too high and there is discord or too high tune. Let them be slack, and the tune will not be right. So with the nervous system; there may be too much or too little tension.

There are very few persons whose nervous system is rightly in tune; therefore we have so many persons out of tune—so many who are always under the weather, as they term themselves.

Two-thirds of all the ills of the human family are caused by some fault of their own—do not have regular habits; expose themselves; too much over-strain to the nervous system in many ways, getting it out of tune; violating nature's laws in a thousand ways, sometimes ignorantly and at other times foolishly—in time they will suffer the penalty of violated law.

Chorea is brought on by shock in the nervous system—as fright—causing an uneven balance of the nervous fluid, which causes the sudden jerking and twitching of the muscles, as when a person is shocked by a galvanic battery.

In this case the galvanic fluid has overcome the magnetic; hence the spasmodic jerking. Wherever there is pain there is some stoppage of the electric fluid in the nervous system at that particular point. In *tic douloureux* we have a spasmodic jerking and twitching of the muscles. This may be caused by spasmodic movements of the electric fluid in the fifth nerve as it passes through its bony covering or canal. Toothache, another form of pain, is the exposure of the end of the nerve to atmospheric electrical influences, or by pressure from an ulcerated tooth, causing pain. There is no pain only as it is referred to the mind or brain, the head-center of all influences. If the nerve be separated above the seat of pain, in an instant there is no pain. All anti-pain medicines only cut off the supply of nervous fluid for a time—that is, cause a temporary paralysis, so to speak; they are anesthetics or anodynes.

All nervous diseases are caused by a high or low tension of the nervous fluid. All psychological conditions are more or less controlled by the condition of the electrical influence in these nerves, brain or spinal cord. I believe that insanity is caused by an abnormal amount of electrical fluid in the nerves in some way getting the mind off its balance, the galvanic overcoming the magnetic influence, causing in some cases great excitability. Where melancholy exists the magnetic has the predominance, causing a slow, stupid condition.

I might go on indefinitely, showing what different effects electricity has upon the nervous system, and what the nervous system has upon them. Many may differ with me in many respects, but I think that I have said enough, and I will submit this for the criticism of my hearers.

A Generous Act.—The Peacock Chemical Co. and the Sultan Drug Co., of St. Louis, have issued a notice to the drug trade, in which they announce that they will pay the stamp tax, and not raise the price of their products. This is certainly a move in the right direction and generous as well, in view of the fact that they sell so much of their products. We hope to see other manufacturers of proprietary remedies follow the good example set to them.

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EDITORIAL.

THE DOCTOR'S OUTING.

At this season of the year, and still more so when the dog-days are upon us, the physician advises his patients to take a vacation, a much-needed rest, and recuperate from the evil effects which constant attention to business or work, mental or physical, may have brought on those who certainly are in need of such rest. In nearly every business house the employes are given a vacation of a fortnight, and the employers doing so certainly reap a benefit from such treatment, as they are served with more alacrity and better by their employes, who return refreshed and ready to resume their duties with pleasure.

It is, above all, brain-workers who need this repose, and it should be as complete as possible. It certainly is no rest to leave with a mass of work to be done whilst on the vacation. If rest it is going to be, it should be complete and absolute. Otherwise it is merely transferring work from one spot to an-

other, and instead of any benefit being derived therefrom the opposite will result. Everyone who can do so should certainly take the opportunity to recuperate, and thrust aside care, worry and all those petty annoyances of life which have so much influence in making it miserable.

We do not doubt that every medical man will agree with us in what we have just said. But, on the other hand, doctors are the last ones to take their own medicine. They will announce all these things to their patients with a great flourish of trumpets, and stay at home and swelter, and fume and fret, knowing that they need a rest, and unwilling to take it as they should. If there is any worker who needs a rest it certainly is the physician. And if there is any particular one who needs it more than anyone else it is the medical editor. His work is a continual grind, and it is a ceaseless one. He must wear out his mind in his practice, and try to patch together what few shreds remain to employ in his editorial duties. And how many do not take the the outing so necessary for continued good work!

The Color of Negro Infants.—*Pediatrics* for July 1st states, on the authority of Dr. Farabery, that the negro baby at the time of its birth is exactly the same color as its white brother, and it shows signs of color only after an interval usually of several days, but often extending to many weeks. It further adds that an eminent French physician, who studied the subject at a Soudanese village on exhibition in Paris, recorded as the result of his observations that the negro baby comes into the world a tender pink in color; on the second day it is lilac; ten days afterward it is the color of tanned leather, and at fifteen days it is chocolate. The coloring matter in the case of the negro lies between the layers of the epidermis. This pigment is semifluid, or in the form of fine granulations; in the Indian it is red, and in the Mongolian it is yellow. It is influenced not only by sun and climate, but by certain maladies, and the negro changes in tint just as the white person does.

To these observations we may add two other facts—namely, that the least tinge of colored blood, however fair the person otherwise be, shows itself in more or less lividity of the lunula of the nail, and that the scrotum of the male negro is always very dark, though he be in other respects exceptionally fair.—*N. Y. Medical Journal.*

MEDICAL PROGRESS.

MEDICINE.

Baths of Nauheim.—Dr. Richard Douglass Powell (*The London Lancet*, April 9, 1898) in an article entitled "The Principles Which Govern Treatment in Diseases and Disorders of the Heart," says:

"The strong brine baths of Nauheim and other places are unquestionably of much service in some circulatory disorders. They are, perhaps, most suitable for cases of chronic rheumatism and gout associated with high arterial tension and secondary cardiac disturbance. In cases of functional excitement of the heart's action in connection with quiescent or only imperfectly compensated valvular affections they may be used. In the latter cases, at first in combination with more or less complete rest rather than with graduated exercises. In the high tension and less quiescent cases, the higher temperatures, calculated to lower tension and to stimulate surface circulation, are more useful. In the more neurotic cases with sound hearts the more tonic and comparatively lower temperatures may be employed, of shortened duration. It is well pointed out by Dr. Groedel that the baths and exercises are two separate therapeutic agents, and that in perhaps only 20 per cent. of the cases are they usefully employed in combination, although massage may be more frequently employed. Beneke, who originated the bath treatment at Nauheim, was very sound in his doctrine to avoid all gymnastic exercises until after the lapse of six months, from any acute endocarditis."

Conservatism in the Use of the Stomach Tube.—Dr. A. L. Benedict (*American Medico-Surgical Bulletin*, June 25, 1898) concludes an article on this subject in a very terse, though somewhat hackneyed, style:

1. Don't use the stomach tube simply because you want to be considered scientific and up to date.
2. Don't withdraw stomach contents for examination unless you are prepared to examine them.
3. Don't discard external means of physical diagnosis because you have a stomach tube.

4. Don't expect too much from diaphanes, electric buzzers, buckets, complicated tubes, etc. All of these have their uses, but are available in very rare cases.

5. Don't pass the tube without first examining the mouth and throat, and also the heart and arteries, and at least inquiring as to pregnancy, piles and other possible complications.

6. Don't pass the tube as a means of treatment unless you know precisely what you wish to accomplish with it.

7. Don't introduce a weight and bulk of water which you would consider injurious if swallowed. As a rule don't introduce more than a pint at once and never more than a quart. Don't be deceived by the ball-valve action of a particle of food or any other cause which may allow water to remain in the stomach. Make sure that you withdraw as much as you introduce, except that you may allow a little for leakage through the pylorus, or possibly absorption. Remember that the more a stomach can hold the less it ought to.

8. Don't imagine that the gastric douche will cure all the diseases of the stomach; you would laugh at a gynecologist who held such a view about the vaginal douche.

9. Don't imagine that a stomach is doing well until it can digest plain, but varied, diet without mechanical interference. Don't speak of a case as cured until he can indulge in all the ordinary food without medical aid and without injury.

10. Don't let the patient learn to pass the tube himself. This rule holds for his benefit as well as yours.

11. Don't fail to use the tube or to have it used when the indications outweigh the contra-indications.

Knee-Jerks in Diabetes Mellitus.—The *Lancet*, July 17, 1897, gives the following statistics:

1. In Manchester among hospital patients suffering from diabetes mellitus, the knee-jerks are lost in from 49 to 50 per cent. of the cases. These patients mostly suffer from a severe form of the disease; 81 per cent. are under the age of fifty years; frequently there is great emaciation, and the cases are often at an advanced age.

2. In private practice, amongst patients who live under more favorable conditions, and in the milder forms of the disease occurring in gouty or well-nourished people over the age of fifty years, the proportion of cases in which the knee-jerks are ab-

sent will be much less. (Knee-jerks were absent in 16.7 per cent. of private patients. Eichorst gives the following: Knee-jerks were absent in only 7.6 per cent. Grube of Neuenahr says the same in patients over fifty years.)

3. The knee-jerks, when present at an earlier period are frequently lost or diminished later. During the last few days of life the knee-jerks are lost in 73 per cent. of hospital diabetic patients in Manchester.

4. They were lost in 18 out of 21 cases of diabetic coma (86 per cent.).

5. Amongst diabetic hospital patients the knee-jerks are more frequently lost under the age of thirty years than over thirty.

6. Since the course of diabetes mellitus depends on so many circumstances, it is somewhat difficult to estimate the exact prognostic value of one symptom, which is occasionally absent even to the last; but the above facts and considerations seem to show clearly that the loss of knee-jerks is more frequently associated with unfavorable prognostic indications.

THERAPEUTICS.

For Hay Fever.—The hypnotic effect of bromidia does not by any means represent the sole benefit to be derived from this preparation, but it meets, in a very perfect manner, many other indications involving hyperesthesia of nerve tips and over-excitability of spinal cord. In doses of one-half teaspoonful, given every four hours for two days, will so benumb the sensory nerve tips of the buccal cavity that dentists can take impressions of the mouth, fit in rubber dams, etc., that would otherwise be impossible on account of the gagging peculiar to some patients. In the hands of the medical practitioner, given in half-teaspoonful doses every four hours, will make life endurable for hay-fever patients during the months of August and September. A teaspoonful will completely quiet the paroxysmal pain following childbirth or miscarriage without in any way interfering with uterine contractions.

Lactophenin.—In its "Hospital Reports" the *Yale Medical Journal*, June, 1898, says that lactophenin was used in a number of cases under treatment at the New Haven Hospital, and from their experience they gather these conclusions:

In a few cases of pneumonia it markedly reduced the tempera-

ture, and there certainly seemed to be no depressing effects; they think in typhoid fever its action is not always certain, and they prefer the external action of cold water in such cases.

In the febrile affections of children this drug is superior to the antipyretics commonly used.

As an analgesic, lactophenin was used in several attacks of migraine, and in a number of cases of acute articular rheumatism. In the former it relieved in nearly every instance. In the latter its beneficial effects were pronounced in a few cases, but pain and fever in other cases were not much influenced.

The conclusion is favorable, because in some cases noted the good results following its use are marked.

A Late Advance in Organo-Therapy.—There is no doubt whatever that the employment of the methods of organo-therapy has done more to advance therapeutics than other modern methods. Whilst this is indisputable, hemo-therapy has contributed no little to this advance. Unfortunately the methods heretofore have not been as advanced as they could have been, and it is only recently that iron and manganese have been administered in the form of blood, retaining all its hemoglobin in such a manner that the liquid, whilst deprived of its albumen, contains all the leucocytes and erythrocytes. The effects of such a combination may be graphically illustrated as follows:

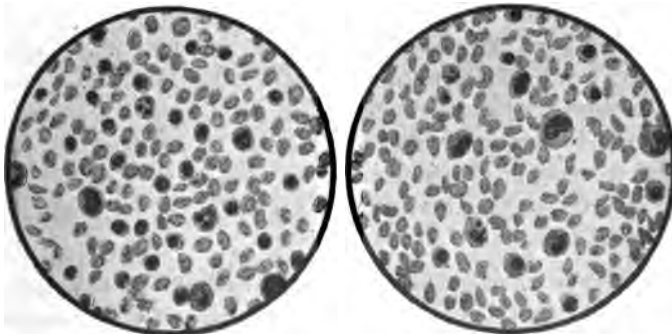


FIGURE 1.

FIGURE 2.

In figures 1 and 2 we have presented a rather marked change. Figure 1 represents the blood in lymphatic leukemia. In this the small mononuclear forms are greatly increased, whilst the red blood corpuscles are in noticeably smaller numbers.

In figure 2 we have presented the appearance in acute leuke-

mia in a child half a year old. Whilst the number of white blood corpuscles was but 48,000 to the cubic millimeter, examination disclosed a leukemic state of the blood. The red blood corpuscles, as in the preceding, are nucleated, and the white are mononuclear.*



FIGURE 3.

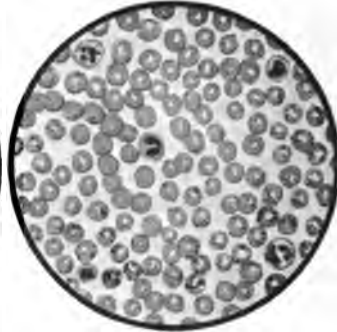


FIGURE 4.

In figures 3 and 4 are shown the blood as it appears after the ingestion of blood prepared as we have just indicated. Fig. 3 shows the red blood corpuscles (erythrocytes) in *rouleaux*, some with distinct central depressions. Three white blood corpuscles with distinct granulation of the protoplasm are also shown. Several groups of blood plates (like clusters of grapes) are also pictured.

In figure 4 the red blood corpuscles are shown flat. Five leucocytes, three of which are polynuclear and two mononuclear, are also shown. To be absolutely correct the illustrations should contain three times as many red blood corpuscles to preserve the proportion to the leucocytes.

This is undoubtedly a triumph in therapeutics, as well as a material advance, which must certainly be gratifying to the medical profession.

Coca Erythroxyton.—We need not enter into a full description of the history of the erythroxyton coca, as we believe that most medical men are fully acquainted with the principal facts concerning the plant. We may, however, recall to mind that the leaf is the only part of the plant used. Very much depends, therefore, upon the plucking of the leaf, and the time at which it is

*We are indebted to the magnificent plates of Dr. Christfried Jacob, in his "Atlas of Methods of Clinical Investigation," for these cuts. Published by W. B. Saunders, Philadelphia, 1898.

plucked, the subsequent care of the leaf being matter of considerable importance, and affecting materially the preparations made from it. M. Mariani was the first in Europe who took up the study of the plant, and over thirty years ago commenced manufacturing for the medical profession the various specialties associated with his name, viz., "Vin Mariani," "Elixir Mariani," "Pâte Mariani," "Thé Mariani," "Pastilles Mariani," etc., preparations which are known all over the world, and which have acquired their well-known reputation by their purity and efficacy. The stimulating and strengthening property of the leaf in its natural state has been tested by experienced travelers and botanists during several centuries, and it is this invigorating property which the physician wishes to bring into use, and which he is enabled to do in a palatable form by means of "Vin Mariani," this wine being indicated where there is great depression, long-continued exhaustion, and where a special stimulative action is desired. "Vin Mariani" is agreeable, palatable, imparting by its diffusibility an agreeable warmth over the whole body, and exciting functional activity of the cerebro-spinal nerve centres. We have frequently prescribed this wine, and we can, from practical experience, recommend it.—*The Provincial Medical Journal*.

PHYSIOLOGICAL AND PATHOLOGICAL NOTES.

Increase of Intradural Pressure in Head Injuries.—Dr. W. N. Bullard (*Boston Med. and Surg. Jour.*, March 24, 1898) makes the following summary:

1. An abnormal increase in the intradural pressure often occurs as an accompaniment or result of severe head injuries, where no large clot exists.
2. This intradural pressure may be in part due to an excess in the amount of subdural fluid. This, however, is, as a rule, not the chief element in the intradural pressure, which is principally due to the bulging of the brain itself.
3. The cause of this intradural pressure is apparently a congestion or filling of the intracranial blood vessels and the results thereof.

Improved Test for Albumen in Urine.—All the tests for the detection of albumen, such as Tanret's, Heller's, Galipe's, Pavy's, Raabe's, Mehu's, Roberts', Oliver's, etc., are fallacious when the urine contains much mucin. Therefore, after many

years of experiment, I find that, in order to avoid mistaking albumen for mucin, I treat the urine with acetic acid, and then filter, and employ the filtered urine in the following manner: Put about a drachm of strong colorless nitric acid S. G. 1.42, and then with a pipette allow a drachm of distilled water to float on top of the acid without mixing, then with the pipette allow a drachm or more of the acidified and filtered urine to fall through the aqueous layer and rest on top of the nitric acid. The line of junction is marked by an opalescent zone, free from color, as the water prevents this as well as separation of uric acid from urates.—L. D. Kasterbim, M.D., *Louisville Medical Monthly*.

DISEASES OF WOMEN AND CHILDREN.

Catarrhal Jaundice in Children.—Dr. Comby (*La Médecine Moderne*, Vol. IV., p. 182) recommends the following treatment:

1. Absolute milk diet.
2. Calomel, one-sixth grain three times a day during one week.
3. An enema every morning with warm water.
4. On discontinuing the calomel, one powder, three times a day, of the following mixture:

℞ Sodium bicarbonate..... $2\frac{1}{2}$ gr.
 Calcined magnesia..... $2\frac{1}{2}$ gr.
 Benzo-naphthol..... $2\frac{1}{2}$ gr.
 Powdered nux vomica..... $\frac{1}{6}$ gr.

Syphilis as a Cause of Abortion.—Dr. J. A. Ouimet (*Med. Rev.*, Vol. XXXVI., No. 15, p. 267) concludes that:

1. Syphilis is a powerful cause of abortion, the abortion being due to a lesion of the fetus itself or its appendages.
2. It occurs mainly about the seventh month. The father alone being syphilitic, can transmit the syphilis to the product of conception. The latter is more liable to occur the nearer the moment of conception is to the beginning of syphilis.
3. The mother may give birth to a syphilitic child while remaining free from syphilis.
4. When the father and mother are both syphilitic the child rarely escapes infection.
5. The mother being syphilitic before pregnancy, is more liable to give birth to a healthy child the more ancient the syphilis.

6. The nearer the syphilis approaches the termination of pregnancy, the greater chance the child has to escape infection.

7. The child born of a syphilitic mother may come into the world presenting lesions manifestly syphilitic, or be born apparently healthy and only become syphilitic after some months or even years.

Syphilis imparts no particular characteristic to the course of confinement. Mercurial treatment should be instituted at the beginning of pregnancy.

Supravaginal Amputation of a Pregnant Myatomous Uterus.—A. G. T. Becking (*Weekblad van het Nederl. Tydschr. voor Geneesk*) reports his third successful case of myotomy during pregnancy. The patient was a woman aged thirty-eight, who had suffered in infancy from convulsions and hemiplegia, and had menstruated irregularly and scantily since her twelfth year. In 1894 she suffered from abdominal pain; and in the succeeding year she married, and thereafter menstruation became more regular. She became pregnant in May, 1896, and shortly thereafter began to suffer from pain in the abdomen and difficulty in urination. Hard masses could be felt in the abdomen, which were diagnosed as uterine fibroids. The abdomen was opened in August, and two subperitoneal fibroids with thick pedicles were discovered, along with several small and large interstitial ones. The whole mass of the uterus and fibroids was therefore removed supravaginally by Treub's method. The mother made a good recovery, and left the hospital on the twenty-sixth day.—*British Medical Journal*.

Non-ligation of Umbilical Cord.—Kellar (*Pacific Medical Journal*) advocates non-ligation of the cord; he has practiced it in more than 2,000 cases, and after careful observation of these and other cases summarizes as his views: (1) Ligation in man is unnecessary, because (a) it is not required at birth of any other animal; (b) the imagined necessity to prevent hemorrhage does not exist; (c) to tie for cleanliness is superfluous; (d) it is unreasonable to consider such an imperfection as needs ligature exists. (2) Ligation is in many cases injurious, (a) because it may justly be considered the cause of secondary hemorrhage; (b) by interfering with dessication, and thus preventing separation, it gives rise to ulceration, with not infrequent consequences of erysipelas, fungoid excrescence, etc.; (c) it causes inflammation

of funicular vessels by keeping them distended with unnaturally retained blood, hindering their normal obliteration, and laying a foundation for phlebitis, jaundice, pyemia, etc.; (d) by preventing normal escape of blood, and thus causing hyperemia and congestion of portal circulation, it may lay the foundation of numerous infantile affections apparently originating in congestion of these vessels. (3) Certainly in some and probably in not a few cases ligature has been directly fatal: (a) numerous fatal cases attributed to ligation have been recorded by the highest authorities; (b) it can be seen in the new-born that the ligature maintains the right ventricle in a state of distention, otherwise relieved by bleeding from the hypogastric arteries, and thus prevents renewal of action if the heart has stopped, or hastens its stoppage if it is failing; (c) in many instances removal of the ligature has saved life when other remedies have failed. — *British Medical Journal*.

SURGERY.

The Other Kidney in Contemplated Nephrectomy.—Dr. G. M. Edebohls (*Annals of Surgery*, April, 1898) says:

The most important resource is incision down to, delivery and examination of the opposite kidney previous to completing an otherwise indicated nephrectomy. He proceeds as follows:

1. Patient is placed prone upon the table. The entire width of back is prepared aseptically.
2. An air-cushion is placed beneath the abdomen.
3. A straight incision is made from the last rib to the ilium, along the outer border of the erector spinæ muscle. If the space is narrow it may be made more oblique.
4. Carry incision through muscles and fascia till perirenal fat is reached. Avoid injuring ilio-lumbar nerve; if divided, the ends should be sutured at end of operation.
5. Cut through perirenal fat till kidney is reached, and separate kidney.
6. To facilitate delivery of kidney: (a) if it be distended with fluid or pus, aspirate; (b) let the assistant draw patient down on the table till the air-cushion lies beneath lower half of thorax; this will cause the kidney to present at wound.
7. Palpation of kidney or any operative procedure necessary. If only a conservative operation is to be done, examination of other kidney not necessary.

8. Unless drainage of interior of kidney is called for, or wound surfaces have been soiled by infectious matter, full closure of the wound without drainage should be the rule.

Gun-shot Fracture of the Humerus.—Dr. M'Ardle presented a case of the above before the Royal Academy of Medicine in Ireland (*Medical Press and Circular*, April 6, 1898) in which a perfect result was obtained by free incision over the point of lodgment of the shot and wadding. The points in the treatment that were accentuated were: (a) The first dressing should be complete, however collapsed the patient. (b) Immediate fixation of the limb. (c) Circulation in limb should be restored by irrigation; temperature of fluid may reach 106 to 110° F. (d) That all these procedures should be carried out under chloroform, since nothing serves to confirm the patient's depression like watching our efforts, all the time pain being severe and muscular action uncontrolled.

Pneumonia in Amputation of Breast.—One of the dangers in amputation of the breast is pneumonia due to exposure at the time of operation. The natural protection by the mammary gland and adipose tissue is taken away, and a moist, evaporating surface very close to the lung invites subsequent congestion. Much danger may be avoided by covering all parts of the wound not at the time the actual seat of operation with hot, wet towels, and changing them as they become cool. Hot water may also be occasionally poured over the protecting towels.—*Int. Jour. Surg.*

ORTHOPEDIC SURGERY.

In charge of PHIL. HOFFMANN, M.D., Chief of the Orthopedic Clinic at the Missouri Medical College; Member of the American Orthopedic Association, etc.

A Case of Spinal Caries, Followed by Late Suppuration, with Discharge of the Abscess Through the Bronchus.—Goldthwait (*Annals of Gynecology and Pediatrics*, April, 1898) reports one of these rare cases in a boy, 14 years of age, who had suffered from spondylitis from the time he was eighteen months old. He says: "The diagnosis of abscess is, of course, not always easy in such a case; but it should always be thought of when symptoms of cardiac or respiratory trouble develop in a patient having the deformity resulting from Pott's disease, even though this may have been considered healed for many

years, provided, of course, that the symptoms cannot be explained by ordinary examination of the chest."

He also mentions a somewhat similar case of Bradford's, where the patient died suddenly, apparently because of pressure upon the pneumogastric nerve, and concludes thus: "The importance of early operation when the diagnosis has been made is readily apparent, and from the location of the pus and the position of the other organs access to it must be from the back at the side of the spine and by partial excision of one or more ribs."

Treatment of Kyphosis by Calot's Method.—H. M. Sherman (*Pacific Record of Medicine and Surgery*, June 15, 1898) reported before the San Francisco County Medical Society two cases of spondylitis with deformity treated by the method of forcible reduction under an anesthetic. One was in a child, twenty months old, with a slight projection of the first and second lumbar vertebræ. The usual method of traction and counter-traction at the head and feet, and direct pressure over the deformity, was employed. The deformity was reduced and a plaster-of-paris dressing from the vertex and forehead down to the hips was applied. At the time reported the child was comfortable and eating fairly well.

The other case was in a boy, 7 years old, who had suffered from tuberculosis as far back as his history could be traced. During the direct pressure, distinct crackling could be felt. The deformity, was not entirely reduced. He seemed to have no pain, but suffered from slight shock and required stimulants. He also related that as a medical student he spent an evening with Dr. Knight, the founder of the hospital for ruptured and crippled in New York, who told him of a case which had passed out of his hands into those of another surgeon, who straightened the spine. The case, not doing well, returned to Dr. Knight for the original treatment. So, perhaps, Calot was preceded by the American surgeon in the application of this method.

Some of the Causes of Lateral Curvature of the Spine.—H. Augustus Wilson (*Journal of Practical Medicine*, June, 1898) speaks of the use of the side-saddle in horse-back riding as an important factor in the production of scoliosis, as the necessary twisting of the body is always accompanied by a rotation of the vertebræ. He advocates horse-back riding itself, even in women

afflicted with lateral spinal curvature, as a good form of exercise; but advises bifurcated skirts and the use of a man's saddle. Among other causes he mentions a faulty position of children at school: "If a leg of a table is in the way, they throw their feet around to one side, but have the shoulders parallel to the table, and as a result there follows a rotation of the spine." As to position of the body in bed, he mentions a young lady accustomed to sleeping upon seven pillows and lying in such a position that lateral curvature could not help resulting. Sitting with one buttock raised, as is not uncommon in girls who are fond of sitting with one foot under them on the chair, he also mentions as a cause.

He says that the reason a deforming position may be more or less indulged in by many persons without being followed by scoliosis is that this position is not persistently maintained, and because the muscles are all in proper relationship and active. To produce this deformity "there must be an enfeebled muscular system as well as a persistent maintenance of an altered or abnormal relationship between the axes of the hips and shoulders."

Very Small Effusions into the Knee Joint, says Fisk (*Medical Record*), can be diagnosed by having the patient stand with the knees extended and both hands resting about the middle of the front surface of the thighs. This relaxes the muscles and causes the fluid to gravitate to the lower part of the joint, producing the condition of "floating patella."

DERMATOLOGY AND SYPHILOLOGY.

Antipyrine Exanthema.—Dr. Lesser, before the Dermatological Society, Berlin (*The Medical Press and Circular*, April 6, 1898), said that the antipyrine exanthema were among the most extended of the drug exanthema. The reason was that antipyrine was not only prescribed by the physician, but was procured and used extensively by the laity themselves. The characteristic of them was: (1) The appearance of only a few spots, the points of predilection were around the body openings; further, points liable to pressure, and lastly the extremities, hands and toes. (2) Their strong pigmentation and their long persistence. (3) Their occasional chilblain-like infiltration. (4) The outbreaks in the same spots every time antipyrine was taken. In addition to these, other parts might be attacked. There was violent burning and itching, which came on rapidly after taking the drug.

The Routine Treatment of Syphilis.—The terrible amount of venereal disease in the British army in India is directing attention to the necessity of instituting a routine treatment of syphilis that shall be universally applicable. Out of 70,642 British soldiers serving in India, no fewer than 31,953, or 45 per cent., had suffered from either primary or secondary syphilis since enlistment, and these men are daily returning to civil life after their short terms of service. It is thought that by instituting intramuscular injections of mercurials the treatment of these cases can be continued for a long period of time, though the victim be not actually invalided, which seems now to be the obstacle to his continued medical supervision.—*Medical Age*.

GENITO-URINARY SURGERY.

The Surgery of the Prepuce and Meatus.—Dr. B. H. Doggett (*New York Medical Record*, May 7, 1898) says the appearance of the meatus is often an index of disease. When carefully observed it gives us hints as to the condition within the urethral canal, just as the tongue tells us of the disturbance of the digestive tract:

1. A bright red, bulging, and edematous meatus indicates acute urethritis.
2. A dull red, patulous meatus indicates passive congestion of the prostate.
3. A dark red, puffy, herpetic meatus, with a flabby elongated prepuce, indicates senile hypertrophy of the prostate.
4. A blanched, anemic, and pinched meatus indicates atrophy or tuberculous wasting.

NEUROLOGY.

Supra-Orbital Neuralgia.—Cases of supra-orbital neuralgia are often so intractable to treatment, and the number of really efficient remedies is so small, that the following history of a particularly obstinate case reported by Dr. R. Bloch (*Die Heilkunde*), in which a rapid therapeutic success was obtained, will prove of interest: The patient had suffered for five years, during the autumn months, from more or less severe and prolonged pains in the right frontal region, and for about three months from intense pains in the right supra-orbital region, occurring suddenly and lasting from six to seven hours. While in previous years the neuralgia vanished under ordinary treatment, the last attack per-

sisted in spite of all the customary remedies, and for two weeks had become so much worse as to incapacitate the patient from work. When first seen by the author the patient was found to be much reduced in health by the constant pains; but aside from extreme sensitiveness to pressure over the supra-orbital foramen, nothing abnormal was noted to account for the neuralgia, which was therefore regarded as of reflex origin. He was ordered 15 grains of salophen, four times daily, and after taking four of the powders slept well and had no attack on the following day. The drug was continued until three drachms had been taken, and since then there had been no recurrence of the neuralgia. Examination of the right supra-orbital region disclosed a complete absence of tenderness, although the author pressed much more strongly than at his first examination, when even a light pressure caused a violent paroxysm of pain. When it was considered that in this case even morphine produced only temporary relief, the excellent effects of salophen, both as regards promptness and permanence of action, deserve careful consideration.

DISEASES OF THE NOSE, THROAT AND EARS.

Tuberculous Laryngitis.—Dr. Ellet Orrin Sisson (*The Medical News*, April 9th, 1898) concluded an article on the above subject as follows:

First. That to the microscopic investigations, and to them alone, is due the present thorough knowledge of its pathology.

Second. That no one line of treatment can be laid down at the present time.

Third. That there is too great a tendency on the part of the medical profession at large to place this disease in the list of incurable affections, and to use only palliative treatment, and not take the interest that they should in the reports from the few untiring investigators, who, in the face of apparently insurmountable, obstacles are endeavoring to find some cure for this dread malady. When we stop and think of the progress that has been and is being made in the treatment of other diseases as destructive in their nature as this, and which were less than ten years ago classed with it as incurable, we are justified in predicting that the time will come, and that it is not far distant, when laryngeal tuberculosis will take its place among them, and be classed as a curable disease.

SOCIETY PROCEEDINGS.

AMERICAN MEDICAL ASSOCIATION.

Meeting held in Denver, June 7, 1898.

FIRST DAY.

Address of the Chairman, Dr. Samuel A. Fisk, of Denver, Colo.:

The climate of Colorado is unsurpassed, and, so far as pulmonary disease is concerned, favorable results can be seen on every hand, and recoveries are to be numbered by the tens of thousands, which after all is the best proof of the efficacy of the Colorado climate in this class of diseases.

The man practicing medicine exclusively is frequently hampered by the professional brother, on the one hand, who demands that he shall put his hands into his sides and have a demonstration to his senses; and, on the other, of the laboratory man who demands that the clinical results shall tally with those of mechanical appliances. As was ably pointed out by Prof. F. C. Shattuck, "internal medicine" should use these different results rather than be used by them. Even now, having been thoroughly scared, she is again resuming courage, and great things are to be hoped for in the future. It may be that she is somewhat to be blamed for these conditions, and that many a fault has been allowed to be covered up by a theory rather than by a fact. "The peculiar type of disease," is often used as a cloak for one's short-comings, or where this fails one is wont to take refuge behind the theory of "self-limitations," which led the first Dr. Warren many years ago, when asked what was good for acute rheumatism, to reply, "Six weeks." Fortunately for us, text-books do not contain the whole of medicine and disease does not necessarily direct her course according to the tactics of a treatise on medicine. We recognise nowadays that, if our joints are swollen and painful with acute articular rheumatism, we do not have to wait the whole six weeks; and we know that the old idea of "twenty-one days," as applied to typhoid fever, does not hold, and that we have the peculiar types of disease known as *typhus levissimus*—a febrile typhoid and abortive typhoid. The fact that we do have these

peculiar types, whether it be the result of practice or in spite of practice, leads us to the hope that disease of any sort, which has once been aborted, can be aborted a second time, and that after awhile the *peculiar* type may become the *prevailing* type. It seems to me, in this direction, that of abortive medicine as well as of preventive medicine our section has a considerable scope for the future.

I wish to remind you that this is the centennial anniversary of Jenner's famous discovery, that persons accidentally inoculated with cow-pox were subsequently insusceptible to small-pox. It is needless for me to do more than make mention of this fact, and to recall the blessings which have accrued to the world from its introduction; how that one of the greatest blights to mankind, one that frequently decimated a population, has been virtually blotted out, and that the average limit of man's days has increased in consequence. It may not be amiss to mention the fact that these are the results of the purest clinical observation, and not those of laboratory toil. I do not wish to seem to depreciate the results of experimentation and of exactness, so called, but I do chafe under what at times took the absurd demand and unjust restriction. One is often reminded of Hamlet's little frenzy: "Why, look you now, how unworthy a thing you make of me. You would play upon me; you would seem to know my stops; * * * S' blood, do you think that I am easier to be played on than a fife?"

Discussion on Perforation Peritonitis.

Dr. J. C. Wilson, of Philadelphia, opened the discussion.

In the list of visceral diseases not yielding to medical treatment, and sooner or later to be transferred to the care of the surgeon, are the following: Empyema, pericardial effusions, troublesome cases of cholelithiasis with persistent symptoms and empyema of the gall-bladder, cysts of the pancreas, echinococcus cysts. Extirpation of the kidney may be performed when it is the seat of malignant or other growths, nephrorrhaphy for the relief of symptoms due to displacements, hydronephrosis and nephrolithiasis may require operation, and certain cases of stubborn nephralgia may require incision into the capsule. The field of the surgery of the gastro-intestinal tract has been greatly extended, such as the establishment of gastric fistula in stenosis of the esophagus, pylorotomy, partial

or complete extirpation of the stomach, gastro-enterostomy, removal of carcinomatous growths of the lower bowel, appendicitis cases, ulcerative cases of the stomach and intestines, especially peptic ulcer and the perforative ulcer of enteric fever.

What the speaker had to say had no bearing upon the purely surgical lesions followed by extravasation of the intestinal contents and infection of the peritoneum, for it is well known that in suitable cases immediate operation is the only hopeful procedure.

Aside from the traumatic and gynecological cases, the list of diseases in which acute general peritonitis may arise is most extensive:

1. In the alimentary canal: (a) peptic ulcer, gastric ulcer and duodenal ulcer; (b) enteric fever; (c) appendicitis.
2. Other hollow viscera, the contents of which may be infected: (a) the gall bladder; (b) the contents of the kidney; (c) the urinary bladder.
3. Rupture of the abscesses: (a) purulent pleurisy; (b) sub-phrenic abscess; (c) hepatic abscess; (d) abscess of the pancreas; (e) appendicular abscess, and (f) other pus collections in regions in relation to the peritoneum.
4. Necrotic processes involving abdominal viscera: (a) internal strangulation; (b) intussusception; (c) volvulus; (d) embolism and thrombosis of the mesenteric vessels; (e) gangrene of the pancreas or the spleen; (f) displaced kidney or spleen with twisted pedicle; (g) acute hemorrhagic pancreatitis; (h) fat necrosis.

In some of these conditions the previous underlying disease can be readily determined, and the patient has been under the observation prior to the accident which caused the peritonitis; but in other cases the patient, while out of health, is able to be about and attend to his duties up to the time of his accident. In the first cases a clear pathological relationship to processes of the antecedent condition may be arrived at and a reasonably accurate diagnosis of the immediate cause of the inflammation of the peritoneum may be reached. The distinction between the cases in which an immediate diagnosis can be made and those in which it cannot be made is a matter of theory rather than of practice. It is the acute fulminant peritonitis that requires immediate consideration. Here is a question of diagnosis.

In the early stages when operative interference is advisable and not without hope, the symptomatology may be grouped as follows:

1. Pain general, becoming local; or local, becoming general, according to cause.
2. Tenderness, general, becoming local; or local, becoming general.
3. Rigidity of the abdominal muscles.
4. Vomiting, green, and exceptionally absent.
5. Rise of pulse and temperature, exceptionally also absent.
6. Shock, varying in depth.
7. Diminished peristalsis.

In fully-developed peritonitis, in which the wisdom of interference is questionable, the symptoms are:

1. Pain, lessened or absent.
2. Tenderness, general.
3. Distension, excessive, replacing rigidity.
4. Vomiting, excessive, dark and fecal.
5. Obstipation; peristaltic movements not heard.
6. Rapid and feble pulse.
7. High or low temperature.
8. Lividity of abdominal skin; cold extremities.
9. Peritoneal facies.
10. Mind clear.

In hopeless cases the above symptoms are increased with collapse; the patient is moribund. (Richardson and Cobb. Park's "Surgery by American Authors," vol. ii., p. 386.)

The importance of the condition of the abdomen cannot be overestimated. The early rigidity of the abdomen is a symptom of the utmost importance, and its value is not sufficiently recognized by the practitioners.

In a recent series of six cases of perforating ulcer of the stomach, reported by different observers, in which the operation was performed within a few hours after the development of the symptoms indicating perforation, five recovered.

In Keen's "Surgical Complications and Sequels of Typhoid Fever," there is a table of 83 cases of operation for intestinal perforation in enteric fever. As a general result, they give 16 recoveries or 19.36 per cent. of cures and 80.64 per cent. of deaths. When this is contrasted with Murchison's unchallenged figures of 90 to 95 deaths without operation we may well take courage for the future.

As regards the time of operation. In the cases operated upon within 12 hours, the percentage of recoveries was 26.7 per cent.; between 12 and 24 hours, 30 per cent. After 24 hours the mortality was total, except one after 26 hours and two that recovered between two and three days.

In conclusion the speaker formulated for discussion the following proposition:

As regards operation in acute general peritonitis due to perforation and analogous conditions:

(a) A definite causal or local diagnosis of the lesions can be made in comparatively few instances.

(b) The diagnosis of acute general fulminant peritonitis is of itself sufficient to justify interference in proper cases.

(c) The earlier the operation the greater the prospect of success. After twenty-four hours, especially if great distension of the abdomen has shown itself, operation is not likely to be followed by recovery.

(d) A small proportion of the cases are manifestly hopeless from the onset.

(e) When the patient is not obviously past hope the fear of death upon the table should not deter the surgeon from operating.

Dr. W. W. Keen, of Philadelphia, said that the catalogue of diseases which caused perforative peritonitis was great enough to challenge our attention. First, in regard to the symptoms the previous speaker had given, he was not entirely in accord, although with the rest that he said he agreed. He thought the pulse and temperature in perforated peritonitis were of unequal value. While as a general rule he thought the temperature to be the best index of an septic condition, still it was not always to be relied upon. The temperature, in his experience, was of not much moment. In regard to the statistics given by Dr. Wilson he would like to speak further. This was a matter of extreme importance. If the case be seen twenty-four hours after perforation you can assign the patient to the grave; we are bound to confess that perforation in typhoid fever means that 95 per cent. will die. Drs. Weir and Tinckler reported that cases operated upon within sixteen hours, give a mortality of over 30 per cent. In cases of appendicitis where perforation has taken place, especially if there be no adhesions or localized abscess, but a general peritonitis, he thought that all present would agree that the only practical hope was offered by operation, and the earlier done the better. As regards the incision in these cases he did not care if it was two or six inches long so far as it influenced the

mortality. In these cases of perforation he recognized the fact that general and complete cleanliness of the abdomen was all important. He did not believe it wise to clean nine-tenths of the abdominal cavity and leave one-tenth to be a focus of infection. He believed, too, in general agglutinative peritonitis, not only to make incision on one side but also on the other, and thoroughly cleanse your abdomen. He was pleased that the section had taken up this topic for discussion, for it was one that touches every physician and surgeon, and one in which they should unite and go arm in arm in the march for life and humanity.

Dr. J. H. Musser of Philadelphia said he would only speak in connection with his personal experience on the topic under discussion. He looked upon pain continuing from twelve to twenty-four hours as very significant, and this to him was a symptom to be greatly dreaded. No other symptom than the occurrence of pain, which was usually localized in the course of the disease, gave him so much dread. If opportunity is given to examine these cases after death one usually finds that the perforation has been preceded by localized inflammation, and there is a considerable amount of lymph covering the intestines in that region, matting them together. The phenomenon preceding perforation is the pain, the degree of which depends upon the intelligence of the patient at the time. In typhoid fever the patients are not susceptible to pain, or else their state of mind does not admit of their complaining unless their attention is called to it. Pain and localized tenderness, the antecedent history, and slight rigidity followed by symptoms of shock, attention should be called to the possibility of an accident. The occurrence of symptoms of shock in the course of typhoid fever, hemorrhage being excluded, are the signs you must rely upon in making diagnosis. He was in accord with the surgeons who wished to make exploratory incisions to make diagnosis. The speaker referred to the case of a young girl, seen in the first week of typhoid fever, in whom the diagnosis seemed undoubted, although the reaction did not verify the disease. The temperature, mental and intestinal, and other symptoms all pointed to the fact that she had typhoid fever. At the end of the first week she complained of some pain in the abdomen, but there was no rigidity nor was there any tympany. The next day the pain

was more severe, referred to the back, and in order to exclude pelvic disease an examination was made, and a large mass was found in the pelvis. The patient dying, there was found a pelvic tumor and also evidences of typhoid fever. The complication was not quite sufficient to lead then astray, but it might have given rise to a mistake; this also showed the importance of early diagnosis. An early exploratory incision would have removed any question that might have arisen in regard to diagnosis.

Dr. C. G. Stockton of Buffalo, N. Y., thought it was best to first discover whether the viscus was a hollow one containing air, like the stomach or intestines, or whether of the gall-bladder, urinary bladder, etc. The symptoms differ materially in different cases. There is not much difficulty in diagnosing a perforation following a peptic ulcer. He cited a case of a patient who was picked up on the street complaining of intense pain and who was in collapse. The pain was in the region of the bladder, and it was thought she had rupture of the bladder. For some reason operation was not performed. The patient survived nearly a week and then died. The autopsy showed a perforation of the stomach. There was a round ulcer from which discharged the gastric contents into the abdominal cavity, and, in this instance, the patient survived several days. In the speaker's mind, the symptoms that stand out as the best guides to perforation of the stomach, intestines, gall or urinary bladder were those of suddenness of the symptoms or of the onset. It was true that perforation might be preceded by a slow, inflammatory process, producing tympany before the symptoms of shock appear. He referred to one case of peritonitis in which the pain was referred to the region of the kidneys. The patient succumbed, and on post-mortem examination a number of renal calculi was found, one of which was just passing through the ureter. His views were in accord with those already expressed, and he wished, however, to state that it often happens that there is an absence of symptoms that one most expects.

Dr. L. F. Bishop of New York believed that opium obscures the diagnosis and gives false confidence. He wished to call attention to the fact that ice bags would relieve the pain in these cases.

The Differential Diagnosis Between Dengue and Yellow Fever, With Some Account of the Epidemic of 1897 in Texas.

Dr. H. A. West of Galveston, Texas, read a paper with this title.

The following hypotheses have been assumed in relation to the recent epidemic:

1. The disease was dengue only. There was no yellow fever in Galveston, Houston, or the State of Texas in 1897.

2. There were anomalous cases of dengue, presenting all the symptoms of yellow fever, but proven not to be that disease by the indisposition to spread from numerous foci and the low mortality rate.

3. During the progress of an intense epidemic of dengue throughout the State, in Galveston, Houston, and possibly other places, yellow fever made its appearance, and in consequence of its mild form and resemblance to the prevalent disease was generally unrecognized.

4. An imputed hypothesis that the epidemic of 1897 in Texas was yellow fever only.

5. A few cases terminated fatally and others attended by marked jaundice and albuminuria were denominated acute infectious jaundice (Weil's disease).

"It appears from the above quotations that the symptoms which have heretofore been relied upon to differentiate between yellow fever and dengue are the occurrence in the former of albuminuria, the characteristic facies (inclusive of jaundice), the divergent pulse and temperature, excessive irritability of the stomach, and increased disposition to hemorrhages. The absence of such symptoms in the main, the presence of an eruption in the large proportion of cases, and a want of mortality are characteristic of dengue. Admitting that there is a great similarity in the symptomatology of the two diseases than has been heretofore acknowledged, the question arises how can they be differentiated? In my opinion, chiefly by the symptom complex of an acute nephritis in yellow fever and its absence in dengue. In the latter, simple parenchymatous changes may occur in the kidneys and be manifested by an evanescent and mild albuminuria; while in the former, in a series of cases many will afford incontestible evidence of the occurrence of a severe nephritis, viz.:

scanty urine of high color and specific gravity, intense and persistent albuminuria, hematuria casts, decided tendency to suppression and the accompanying uremia."

SECTION ON PRACTICE OF MEDICINE.

SECOND DAY, June 8th.

Diabetes Mellitus at the Massachusetts General Hospital, From 1824 to 1898. A Study of the Medical Records.

By Drs. Reginald H. Fitz and Elliot F. Joslin of Boston.

Dr. Joslin read this paper.

From 1824 to 1898 the total number of cases treated was 172. Within the last thirteen years there were as many cases as in the previous sixty-one years. 127 or 74 per cent. were males; 45 or 26 per cent. were females. The average age of 40 female patients was 39.1, being higher than in 121 males, in whom it was 31.4 years.

Tables showing the proportion of diabetic cases to other medical cases in the hospital, as well as the classification of the diabetic cases as regards age, nationality, occupation, heredity, and trauma, were presented. There was only one negro in the 172 cases.

In the early days the impression prevailed in the hospital, as in the literature of the time, that more urine was passed than liquids ingested. Sugar was determined by taste till 1851, sometimes by the patient, at others by the doctor.

In 1835 occurred the statement, "A curious smell in the breath which he has had since entrance." After that time frequent allusions were made to the odor of the breath and urine—long before the tests for the acetone was discovered.

In one case the disease had lasted twelve years, in another two weeks. The average duration was one and one-half years. Tables were also given which showed that the duration in nearly seven-eighths of all the fatal cases was less than two years.

Of 172 patients, 47 or 27 per cent. died. The mortality among 172 males was 30.7 per cent; of 45 female patients, 8 died, giving a mortality of 17.7 per cent. The lowest mortality was in the period from 1824 to 1840, but the total mortality from 1824 to 1885 was the same as from 1885 to 1898. Eighteen of the 47 fatal cases died comatose.

It was noteworthy that of the diseases complicating the fatal

cases only six had pulmonary tuberculosis, only six chronic nephritis, and disease of the pancreas was present in only one instance.

The diet of the first period was "Animal food and bread in small quantities." Since then there has been no essential change. Opium was the only drug continuously used. In the period between 1840 and 1855 experiments were made with yeast, and between 1870 and 1885 with glycerine, but with poor results. Eight of the comatose patients were treated with subcutaneous or intra-venous injections of salt solution or bicarbonate of soda. All died. In some there was a temporary improvement.

Dr. West of Galveston, Texas, thought that the small proportion of cases occurring in the negro might be due to the small number of negroes in that country, although in his experience he had never seen a case occurring in that race. He had found diabetes and gout frequently associated. Diabetes pursues a rapid course in the young. Albuminuria was said to be found in about 60 per cent. of the cases, and yet the autopsies fail to show kidney lesions; this to him was quite remarkable.

Dr. Tyson of Philadelphia said that about three years ago he gave a clinical lecture in which he made the statement that he had never met with a case of diabetes in a negro. There happened to be a negro physician present who had a large number of negroes in his practice. In a few days three negroes came to him with unmistakable diabetes. He thought it was more common in this race than it was thought to be.

Dr. Bond of Indiana said that he thought this trouble was more common in the Hebrew race than in the Christian, because the former had a peculiar life, giving parties, and often congregating together and having evening meals. They have the disease more than any other people.

The Influence of Sunlight on Tuberculous Sputum in Denver; a Study as to the Cause of the Great Degree of Immunity Against Tuberculosis Enjoyed by those Living in High Altitudes. By Drs. William C. Mitchell and H. C. Crouch of Denver.

Dr. Mitchell of Denver read this paper.

In high altitudes both the absolute and relative moisture is low, and this, together with the much lessened atmospheric pres-

sure and almost constant winds of greater or less degrees, greatly facilitate evaporation. Thus are created conditions extremely favorable for the abstraction of moisture by the atmosphere from whatever substance it comes in contact with. The moist surface of the lungs must suffer considerably more loss from moisture in this altitude than at lower ones, and it is this eternal battle for moisture compensation, especially as it occurs in the lungs, that we believe to be one, and by no means the least, of the factors which either aids in granting such a large measure of immunity against tuberculosis here, or in arresting or retarding such processes in their incipency. We know that the tubercle bacilli grows but poorly, if at all, on media deficient in moisture; and, while it hardly seems possible that there could be moisture enough extracted to leave the alveolar linings in a state too dry to offer a suitable nidus for the invading bacillus, yet it is not improbable that this constant and rapid pulmonary evaporation creates conditions extremely unfavorable to its development.

When the animal organism is subjected to increased atmospheric pressure, the blood is caused to recede from the capillaries of the skin and mucous membrane, thus producing an anemia of these parts. In extremely high altitudes the diminished air pressure caused a great dilatation of the capillary vessels of both skin and mucous membrane, causing a mechanical hyperemia. These vessels are often ruptured, and we may have hemorrhages from the mucous membrane of the mouth, nose, or even the lungs, the tympanum is bulged outwards, the respiratory and cardiac movements are quickened, and muscular motions are facilitated. In short, we have the conditions described by adventurous mountain climbers and known as *mal de montagne*.

There are two things which militate against the spread of tuberculosis in high altitudes: 1. The powerful influence of the solar rays, acting through a thin atmosphere, rapidly destroys the virulence of the exposed tuberculous matter. 2. The vital functions are so operated on by the various meteorological phenomena that they are specially fortified against the invasion of the tubercle bacillus. We believe that our experiments clearly demonstrate that the immunity does not proceed from the first of these theories, and that we have every logical right to attribute it to the second proposition.

The Course and Management of Complicating Myocarditis.

Dr. Louis Faugers Bishop of New York read a paper with this title.

In the course of the practice of medicine, as diseases and conditions are unconsciously classified, ideas gradually develop themselves that it is not always easy to formulate into the language of exact scientific observation. One of these impressions has been that, in the debility following severe diseases, there is some more definite underlying condition than is generally formulated. The explanation alone of an exhausted and deteriorated nervous system is not sufficient. The attention is drawn to the heart muscle, and clinical observation, confirmed by the pathological observation of others, has led to the belief that complicating myocarditis is an important factor in the course and progress of many conditions. The signs of disease of the heart muscles should therefore be studied with care. In acute diseases and wasting diseases, whatever may be their nature, there come times when it seems evident that the heart has participated in the debility and degeneration that is visible in the other tissues of the body. So we find in the milder cases a condition of simple weakness of contraction, and in the more severe signs are suggestive of myocarditis, namely, irregularity in force and rhythm. When, after an acute disease or in the course of a chronic affection, these signs are noted it becomes important to interpret their meaning and study their indications.

Our conception of the condition under consideration is an inflammatory state of the myocardium following acute diseases, occurring in the course of chronic wasting diseases, or beginning as an extension of inflammation from an endocarditis or a pericarditis. It is not proposed to consider conditions secondary to diseases of the coronary arteries or excessive hypertrophy. Our object does not demand an extended reference to pathology. A form may occasionally originate in an acute interstitial myocarditis, but more frequently it is a parenchymatous degeneration. Dr. Osler remarks that it is probably the effect of a toxic agent, and that there is no definite relation between it and high temperature.

Everyone is familiar with the appearance of the heart muscle in a patient dead from an acute prolonged illness. It differs in

appearance from the heart of a person who has been killed by accident while in good health. In the former the muscle is pale and grayish looking, while in the latter it is firm and red and of a healthy color. Probably in many diseases there is this low grade of inflammation that is not more than a slight degeneration.

These cases are too often diagnosed as general debility, or as instances of disturbed cardiac innervation. It is important that the real condition should be recognized, because the treatment may otherwise be prejudicial. Stimulants directed to the heart itself are certainly philosophically contra-indicated. We might whip a lazy horse, or we might improve the behavior of a nervous horse by discipline, but a sick horse should always be rested and fed. So in the case of the heart that is feeble and behaving badly on account of myocarditis following a severe illness; muscle stimulants should be avoided.

Especially is the care of the heart important in those cases of acute infectious diseases in which the valve lesion has unfortunately been developed by complicating endocarditis. In severe endocarditis, myocarditis also probably exists, so that there is a double call upon the forces, as the heart must not only gain its normal power, but also learn to do greater work to make up for the lesion in the valve. Particularly is it important for these patients to follow a long and strict regimen, avoiding indiscretions of diet, sudden exertion, and dissipation of all kinds.

The treatment of degeneration of the heart fibre, when that is far advanced, is a difficult problem. Indeed, often when on account of the evidence of well-marked symptoms, we can say definitely that such a progress is going on, it is often too late to accomplish a great deal. The hopeful cases and those which it is especially desired to call the attention to at this time, are those of complicating myocarditis, met with as an accompaniment of acute diseases.

One of the dangers to the person suffering from myocarditis is the possible result of sudden over-exertion, causing an acute dilatation of the heart, from which recovery is not easy. The proper regulation of the muscular activity of the patient is therefore of the utmost importance. Exercise undertaken to improve the general bodily nutrition, and that of the heart muscle in particular, should be light, slow, and systematic. Next to exercise

comes diet. Food should be concentrated so that the nourishment is administered in small volume, leading to an easy performance of the functions of the stomach without the tendency to distension such as may mechanically embarrass the function of the heart and lung. With the principle of small volume of food much latitude as to variety may be permitted. The use of alcohol without its abuse in cardiac cases is very difficult. Probably a small quantity with meals is not harmful. But any excess is always followed by injury. The use of tea and coffee is a good deal a matter of experience with particular patients, but the extreme frequency of cardiac symptoms produced in persons with normal hearts by tea, and the fact that both tea and coffee are recognized as cardiac stimulants, should make us take the stand with our patients that these being cardiac drugs should be controlled by the physician. The use of tobacco is better discontinued.

The picture presented by the convalescent from an acute disease who has escaped with a healthy heart is very different from the one who has suffered from degeneration of the heart muscle. The former regains health and strength rapidly; the pulse becomes strong; the color returns, and the patient is soon in good health again. The patient with complicating myocarditis lingers along in a state of semi-invalidism. The disease from which he originally suffered has entirely disappeared. There is apparently no reason that he should not recover strength and health, but the heart for a long time remains weak, unless its state be recognized and particular measures be employed to restore its integrity. This chronic complicating myocarditis explains symptoms so often witnessed after diphtheria, grippe, scarlet fever, and other diseases characterized by a violent infection.

The Differentiation of the Cardiac Incompetency of Intrinsic Heart Disease and of Chronic Nephritis.

Frank Billings, M. D., of Chicago, read a paper with this title.

Certain phenomena common to both of the above conditions he enumerated. Special phenomena, however, are sometimes present, which, although sometimes common to both, are more often the result of a primary heart or kidney lesion alone, and these signs or conditions are of some aid in a differential diagnosis.

If the urine, even though scant, shows a relatively low specific gravity, with diminished total solids, lessened urea, much albu-

min and casts of all varieties. If the arterial fibrosis is marked and the pulse full and sustained, or without arterial thickening if the pulse is sustained. If the dropsical effusion contain urea in a considerable amount. If there is a tendency to inflammation of serous surfaces, pericarditis and pleuritis especially. If there is a tendency to persistent morning nausea and vomiting of stringy mucus. If there is a tendency to periodic diarrhea. If there is much headache, especially severe frontal and occipital pain. If there is a tendency at one time to unrest and mental excitement, or at another to somnolence or to coma. If cerebral hemorrhage occur. If the dyspnea of exertion becomes of the Cheyne-Stokes type, if severe epigastric pain occur. If the eye shows the changes common to albuminuria, and if the patient present a pale, waxy, puffy face and heavy expression and a general anemia, the diagnosis is in favor of nephritis. If there is a history of antecedent disease in which endocarditis may occur. If the heart show physical signs of valvular disease with characteristic murmurs. If there is an irregular heart action, persistent in character. If the pulse is weak and not sustained with or without arterial fibrosis. If the dyspnea of exertion is attended with cyanosis. If there is a normal amount of red cells and hemoglobin or only a moderate degree of anemia. If the dropsical effusion begins in the lower extremity, appearing during the day, and if the dropsical effusion is rich in albumin, and if the dropsical effusion contain little or no urea. If there is much enlargement of the liver and tenderness of the left lobe. If the urine is scant, of high specific gravity, with much deposit, with little or no albumin, a high percentage of urea, although the total urea in twenty-four hours is deficient, a few casts only, slightly hyaline or finely granular. If there is little or no headache, no eye changes, and if venous thrombosis or embolism occur, the diagnosis is in favor of intrinsic heart disease.

The recognition of an incompetent heart is usually not difficult. The dyspnea of exertion, the sense of post-sternal weight and constriction of the chest, the cough of exertion, and upon assuming the recumbent position the enlarged liver with tenderness and pain often or a feeling of weight in the epigastrium, the indigestion of portal congestion, the usually scant urine, the edema of the feet, or all of the above mentioned symptoms much exaggerated until constant dyspnea with orthopnoea, general

anasarca, excessive physical weakness, marked pallor and cyanosis, give unmistakable evidence of cardiac weakness. The local signs of valvular disease may be absent or present. Signs of cardiac enlargement with dilatation of the chambers of the heart are present and may usually be recognized.

These symptoms are usually present in varying degrees of severity in an incompetent heart. When due to intrinsic heart disease, a valvular lesion or some other cause of dilatation of the heart and weakness of the heart muscle is present. In chronic nephritis, cardio-valvular changes occur, and especially in the form classed as diffuse interstitial nephritis. In the latter stages, especially of chronic nephritis, the heart may become so dilated that it becomes incompetent, and the symptoms and signs enumerated appear. The urinary findings, the symptoms of uremia and other characteristic signs, may plainly indicate the primary nephritis. In many cases, however, the differentiation cannot be easily made, and in a few examples the diagnosis may remain in doubt until the light side of the dead house clears up the darkness. It is with these doubtful cases that this paper has to deal.

Dr. West of Galveston referred to the therapeutic test in determining which condition was the primary disease.

Dr. Bond of Indiana said there was one important factor in both diseases, which was an arterio-sclerosis; he doubted if it were possible to have either disease without this condition being present.

Diabetic Gangrene.

Dr. N. S. Davis, Jr., of Chicago, read this paper.

Dr. Davis detailed the history of three cases. The first and third cases typify well the milder forms of spontaneous gangrene in diabetes. The successive invasion of different toes in the last case is noteworthy. The diminution and even disappearance of glycosuria in both cases while mumification existed and spontaneous amputation of the phalanges was progressing, is interesting. A similar marked diminution or disappearance of glycosuria he had observed in several cases when tubercular disease of the lungs was active. Both cases were upon diabetic treatment, which consisted mainly in a regulation of the diet, the use of arsenical preparations, and, at times, opiates.

The second case was one of *mal perforant*, which is an occa-

sional complication of diabetes. The association is no more an accidental one than the association of diabetes and gangrene proper. Diabetic gangrene occurs much more often in the legs and feet than elsewhere.

Those cases of gangrene occurring in the course of diabetes which are associated with or superimposed-upon inflammation, are undoubtedly chiefly due to the low vitality of tissues in diabetics, and the consequent ease with which putrefaction takes place in them. The frequency of gangrene in the lungs in diabetics who also have tubercular or other diseases of the lungs can be accounted for in this way. The cause of spontaneous gangrene which is not preceded by visible wounds or infection is of more interest. Neuritis and atheroma have both been assigned as causes of the spontaneous gangrene of diabetics. Both lesions frequently accompany diabetes. Godlee admits two varieties of spontaneous diabetic gangrene, one due to neuritis, in which he advises operation close to the point of necrosis, and one due to atheroma, in which he advises amputation at the knee or above. According to Heidenain's view, spontaneous gangrene in diabetics is pathologically identical with senile gangrene. He also calls attention to the very frequent occurrence, even in early life of adults, of arterio-sclerosis in diabetics. Hunt says that areas of gangrene in diabetics are mapped out by a less defined line of demarkation than in cases of senile gangrene.

Surgeons have been disinclined to operate upon diabetics because of their susceptibility to infection. Recent experience has shown that amputation can be performed upon them with good success if only sufficient care be taken to prevent infection. Heidenhain (*Deut. Med. Wochen.* 1891, XVII.) recommends that if gangrene is confined to the toes, the physician wait until a line of demarcation develops, and if there is no evidence of general infection, that the dead tissues be allowed to separate spontaneously. If, however, the sole or the dorsum of the foot is involved, the leg should be amputated at the knee or above it. I think that amputation of the toe, after a line of demarcation has become well established, is preferable to the tedium and pain of spontaneous amputation.

The greatest care should be taken to gently remove the sloughing tissues, and by the free use of antiseptics to limit putrefaction.

The Use of Iron and Opium in Bright's Disease.

Dr. James Tyson of Philadelphia read a paper with this title.

In 1880, in speaking of the treatment of chronic interstitial nephritis, he stated that iron was an important and indispensable drug, and might be given in the form of the acetate or Basham's mixture. Since writing the above he has been led to believe that a good deal of mischief has been done in Bright's disease by iron, and he was not sure but that it would have been better for the patient if the gallons of Basham's mixture used had been poured into the street gutter, rather than into the stomachs of the patients. Not every case of Bright's disease is anemic, and as iron has no specific curative effect it is clearly not indicated in non-anemic cases; nay, more, it is often harmful. It locks up the secretions and checks elimination, already restricted by a diminished function of the kidney. It may be laid down as a rule, to which there is almost no exception, that iron is not indicated and should not be prescribed in cases of acute Bright's disease.

Iron, too, is contra-indicated in chronic interstitial nephritis. In this form iron is more promptly and dangerously harmful than in any other form of Bright's disease.

The form of Bright's disease in which iron is best borne is chronic parenchymatous nephritis, especially as this is more likely to be associated with anemia. Here doses are usually given in too large amounts; and he held that if iron appears in the feces this unabsorbed portion is useless, and it is this useless portion that acts as an astringent and causes constipation.

In regard to the belief that Basham's mixture was a diuretic, he did not think that was so except it was so from the amount of water that it contained.

In regard to the use of opium in this disease, he said he had seen a fatal uremia produced in a couple of spoonfuls of paregoric. Opium is certainly contra-indicated in chronic interstitial nephritis; in this form of the disease he had seen many cases launched upon their last sleep, and the danger lies especially in those whom we do not suspect to have the disease. He emphasized the importance therefore of always examining the patient's urine before administering opium. The greater the destruction of the kidney, the greater the danger from the use of opium.

The treatment of puerperal convulsions by the hypodermic injection of morphia is justifiable on the ground that most of these cases are of the acute form; but even here caution must be used.

We should be certain that cases of disease requiring the use of morphine are not complicated with chronic Bright's disease.

Dr. West of Galveston, Texas, thought that iron was of use in acute Bright's disease. In uremic convulsions he thought many lives could be saved by the heroic administration of morphine.

Dr. Stockton of Buffalo thought that hypodermics of morphine had saved many lives when all other remedies had failed. In regard to the use of iron he did not agree with the reader of the paper. He did not think that small doses of this drug were as beneficial as large doses, for not so much was absorbed.

Dr. Brown of Cincinnati, Ohio, thought that both iron and opium were dangerous in any form of Bright's disease.

Rare Cases of Arythmia.

Dr. J. M. Anders of Philadelphia read this paper, concluding it by restating in sequence some of the most interesting points embodied in the report of the cases given.

1. The presence of reduplication of both first and second sounds (double reduplication) in the first two cases—one of tobacco poisoning, the other exophthalmic goitre.

2. The occurrence of a typical *pulsus bisferiens* in case one, dependent upon the toxic effects of tobacco, in the absence of combined aortic regurgitation and stenosis.

3. The presence of a cyclical increase in the rapidity of the movement of the heart, followed regularly by a brief pause; and the striking mechanical effect of the respiratory function upon this peculiar variety of arhythmia.

4. The temporary production of apical systolic murmurs during the inspiratory element of the respiration.

5. That all the cases developed in subjects in whom previously existed valvular lesions of the heart, so far as determinable, were absent.

A Consideration of Four Cases of Epilepsy, with a Reference to the Cause.

Dr. Charles S. Bond of Richmond, Indiana, detailed the history of these cases, and said:

It will be observed that these cases represent great variety as

to age. They include three boys and one girl, but they all have something in common, some form of irritation originating in the alimentary canal, causing, according to the best of belief, a cortical disturbance, which in turn produces unconsciousness directly and reflex tonic and clonic spasms of peripheral muscular fibres. This analogy has been sought from a number of cases under observation, because of the strange proof that such cases are to have upon the more extended knowledge of peripheral irritants in epilepsy—a fact which few bright minds in the profession are wont very rapidly to appreciate. Whether we believe in the causative influence of uric acid or leucomaine products from this group, or whether confidence is given to the total toxic effect of maldigestion, the fact still remains that a very strong relation exists between these products and those cortical disturbances seen in the various forms of so-called idiopathic epilepsy. Other sources of extrinsic irritation are numerous and have received due credit in most instances long since, while this more obscure field, and therefore all the more interesting one, still presents much for careful study in the differentiating of such irritants. If the rationale of this phase of the disease is, therefore, that irritants from the digestive tract, through the blood, come in contact with the cortex, thereby causing a constant or intermittent efferent current, in like manner controlling the muscles, it would seem the highest service to such patients must come in the prevention of these products from entering the blood current. Under this view it is difficult to understand how the bromide salts can do more than palliate and thereby perpetuate an evil which is quite removed from the drugged cortex. Indeed, I shall venture the opinion that in many of these cases, in the end the bromides do much harm—more than good. In the first place by suppressing to a certain extent the evidence of an evil, which at that period is the most amenable to treatment; and in the second place, by injury which these drugs often have upon the already diseased digestive tract; and lastly, the unusual effect which sometimes occurs in the cortex itself.

Dr. Stockton of Buffalo said he had seen just such cases as Dr. Bond had described. His own opinion was that cases of epilepsy could be relieved by attention to the gastro-intestinal tract. Some cases of epilepsy are aided by aiding digestion. Again, there is a class of cases in which no improvement follows by attention to this portion of the canal.

Dr. Lockard of Colorado saw a child on the 12th of May last; child was twelve and a half years of age, and when he was called to see the patient he was in a convulsion. Upon questioning the parents he elicited the fact that on the paternal side the grandfather had been subject to epilepsy since childhood (he was now sixty-four years of age). Also, that when he moved to Colorado the attacks became less in frequency. He also learned that one or two members of the family on the paternal side were victims of epilepsy. He therefore felt reasonably sure of the hereditary condition. Thinking of the possibility of poisoning, he administered a hypodermic of apomorphia and had emesis produced. After the contents of the stomach was evacuated the child got better, and has been well since.

Dr. Tyson of Philadelphia thought that the explanation of these cases may be made often in the way Dr. Bond stated, from reflex irritation and absorption of toxic substances. He referred to a case of a young girl who had convulsions, who got well upon the expulsion of a tape worm. Another case of a man, the victim of convulsions for two or three years; the relief of a chronic constipation afforded him relief from his attacks.

Dr. Jones of Buffalo spoke of the probability of the reflex disturbances causing irritation which produced these seizures. He related the instance of a boy, aged nine years, who had nocturnal convulsions. He tried to eliminate some factors which might have a causative influence on these attacks, and he soon discovered a catarrhal gastritis with hypochlorhydria and gastric dilatation. Regulating the patient's diet and his manner of eating, etc., until in about fourteen or sixteen weeks the boy has had no evidences of any more seizures.

Dr. Anders of Philadelphia understood Dr. Bond to speak against the use of bromides in epilepsy. He thought it was the duty of the physician to use the bromides in epilepsy, this being the best known way of ameliorating the attacks and lessening the frequency of these attacks.

Dr. Robinson of Illinois reported a case of epilepsy occurring in a child of six years. Upon careful examination he found the child's head covered with boils or abscesses. He concluded that the child was pyemic, and these abscesses upon the child's head had existed since birth and the blood was so poisoned. The treatment directed to that condition cured the child.

BOOK REVIEWS.

System of Diseases of the Eye. By American, British, Dutch, French, German and Spanish authors. Edited by WILLIAM F. NORRIS, A.M., M.D., and CHARLES A. OLIVER, A.M., M.D., of Philadelphia, Pa., U. S. A. Vol. III. Local Diseases, Glaucoma, Wounds and Injuries, Operations. Royal 8vo., pp. 962. With Fifty Full-page Plates and One Hundred and Eighty-six Text Illustrations. [Philadelphia: J. B. Lippincott & Co. 1898. Price of the entire work in four volumes: cloth, \$20.00; sheep, \$24.00; half Russia, \$26.00. Sold by subscription only.]

The examination of this volume only serves to confirm our previous utterances on this veritable masterpiece of medical literature. The same care and thoroughness has been shown in this that has been so manifest in the two previous volumes, and it will long remain a source of pride to its authors, editors and publishers. We are indeed proud that it is in this country that publishers were found to issue it, and the more so as it cannot but elicit the admiration of the medical profession throughout the civilized world.

We cannot attempt a critical analysis on account of lack of space, but this much at least can be said: every article has been carefully written by a most capable ophthalmologist, and the best artistic talent has been called to contribute the superb illustrations and plates with which the work teems. A most important as well as capably written article is that by Mr. Priestley Smith, of Birmingham, England, on Glaucoma. He is not only thorough and painstaking, but he has the ability to combine the practical with the scientific.

Dr. Johann Deyle, of Prague, writes on Diseases of the Optic Nerve in a masterly manner. What he says of choked disc is certainly worthy of the highest consideration. Diseases of the Conjunctiva and Sclera is also well handled by Dr. Swan M. Burnett, whose name is too well known to need more than a mere mention, as he has long since established a brilliant reputation. Dr. Joseph Schöbl, of Prague, gives a most scientific as well as eminently demonstrative article on Diseases of the Retina, wherein are given many interesting ophthalmoscopic pictures.

We might go on multiplying references to different contributions, but it certainly would be a work of supererogation. Not one can be found that is not deserving of the highest praise and commendation. The work is magnificently gotten up, as is certainly proper in view of the work of the contributors, and the illustrations are simply above criticism. There is no ophthal-

mologist at all worthy of the name who will not give this work the place of honor in his library. It would certainly lower the esteem in which he is held by progressive physicians were they to note its absence, and ought to lead to adverse criticisms. The civilized ophthalmological world has furnished its brightest lights to illumine the pathway, and certainly a proper recognition of this act should be made by a liberal practical support. We hope to see the work increase its sales with the issue of each volume.

Atlas and Abstract of the Diseases of the Larynx. By Dr. L. GRUNWALD. Authorized translation from the German. Edited by CHARLES P. GRAYSON, M.D. 12mo., pp. 103, with One Hundred and Seven Colored Figures on Forty-four Plates, and Twenty-five Text Illustrations. [Philadelphia: W. B. Saunders. 1898. St. Louis: Lewis S. Matthews & Co., 714 Pine street. Price, \$2.50 net.

This is another of the Lehmann's Hand Atlases, and it fully sustains the excellent reputation made by its predecessors. In the volume before us the grouping of pictures has been made with reference to analogy or similarity of appearance rather than in what might be called the order of classification. In that manner clinical pictures have been presented which enjoy the essential quality of being highly instructive. The author, not satisfied with presenting the macroscopic appearance of various conditions, has also given us the microscopic, thus giving a better exposition of the pathology than could be done by mere text.

The text, while short, is clear and most forcible as well as explanatory. Aided as it is by magnificently executed illustrations in color, it cannot fail of being of the greatest advantage to both student, general practitioner and expert laryngologist. We heartily commend the book.

Conservative Gynecology and Electro-Therapeutics. A Practical Treatise on the Diseases of Women and Their Treatment by Electricity. By G. BETTON MASSEY, M.D. Third Edition. Revised, Rewritten and Greatly Enlarged. 8vo., pp. 400. Illustrated with Twelve Full-page Chromo-Lithographic Plates, numerous Full-page Original Half-Tone Plates of Photographs taken from Nature, and many other Engravings in the Text. [Philadelphia: The F. A. Davis Company. 1898. Price, \$3.50 net.

This is practically a new work, as the author has entirely rewritten it, made numerous additions and introduced all the latest advances. We feel called upon to commend this work for one principal reason, which will certainly appeal to every rational gynecologist. The author does not believe, on the one hand, that pessaries will cure every ailment that woman is subject to,

nor, on the other, that it is necessary to operate for every uterine trouble. He has chosen a moderate, medium course, and this is certainly the best to adopt in all circumstances except the few in which radical action is imperatively demanded.

There is one portion of the book which we wish to commend more particularly, not that it is better, for the text throughout is excellent, but because it calls attention to a point which has been too often overlooked. It is simply a discussion on the border line between Neurology and Gynecology. As the author very justly observes, were more attention paid to this question there would be many ovaries spared from the knife of the surgeon.

Gynecologists and general practitioners should possess themselves of a copy of this book. It is very instructive, and we only regret the fact that more chromo-lithographs of uterine conditions could not be introduced; for, those which are given are not only most excellent from an artistic point of view, but equally demonstrative clinically. The book is elegantly bound with beveled edges, and we have no doubt will meet with a large sale.

Atlas of Legal Medicine. By Dr. E. Van Hoffman. Authorized Translation from the German. Edited by FREDERICK PETERSON, M.D., assisted by ALOYSIUS O. J. KELLEY, M.D. 12mo., with 120 Colored Figures on 56 Plates, and 193 Half-tone Illustrations. [Philadelphia: W. B. Saunders, 1898. Price, \$3.50 net.

This is, beyond all question, the best one of the celebrated Lehman's Atlases which we have seen, and it is certainly the most complete work of its kind ever issued. This should certainly be expected when we take into consideration the fact that the author is Professor of Legal Medicine in and Director of the Medico-Legal Institute of Vienna. It is then with much pleasure that we received this work, and this pleasure was certainly augmented by a knowledge of the fact that works on forensic medicine had hitherto been so deficient in illustrations.

The work before us does not pretend to be a medico-legal treatise, but rather a supplementary volume to existing ones. The idea of the author was to furnish the requisite illustrations to such treatises, and he has certainly succeeded most admirably and successfully in his endeavor. The object was an endeavor to illustrate every phase so far as lay in the author's experience, and he has certainly shown us a collection which is rich. Very few cases are missing, but we note the absence of the effects of sulfuric acid thrown with criminal intent.

As the cases are depicted in illustration the histories are given and the conclusions of the author, as a medico-legal expert. We are sure that this vast wealth of material will be utilized by those interested in the subject. And, when we consider the real necessity existing for coroners, lawyers, and the medical pro-

fession in general to familiarize themselves with the very subjects considered in this book, we cannot see that it can be anything but a great success in the matter of sales. It is really the only one ever published deserving of any consideration.

Text-Book on Diseases of the Kidneys and Genito-Urinary Organs. By PROF. DR. PAUL FUERBRINGER. Translated from the German, with Annotations by W. H. GILBERT, M.D. In Two Volumes. Vol. II., 8vo., pp. 310. [London: H. K. Lewis, 136 Gower Street. 1898. Price, 10/6.

The name of Fuerbringer in connection with renal and genito-urinary diseases is a sufficient guarantee of the value of the work without any further commendation. There exists none in Berlin with a more enviable reputation, which is certainly well deserved and honestly earned. A careful reading of the work before us will easily demonstrate this. Beginning with a masterly exposition of pyelitis and pyelonephritis, the author takes into consideration perinephritis and paranephritis, the latter of which is not usually considered in our works on genito-urinary diseases.

Tumors of the kidneys and abnormalities of the kidneys form the subjects of most interesting as well as instructive chapters. Diseases of the bladder are taken up at length and in detail, following which come diseases of the urethra in the male and in the female. In regard to treatment he is no doubt correct when he states that there is very little choice in regard to remedies, the method of application being the important point.

Prostatitis, balanitis, morbid loss of semen, virile impotence, and sterility in the male are the subjects which conclude the work. For the rational practitioner no better work could be advised; for the prescription-hunter, that bane of the medical profession, it would prove a disappointment. We desire to commend the work most heartily.

A Compend of Diseases of the Skin. By JAY F. SCHAMBERG, A.B., M.D. 12mo., pp. 307. With Ninety-nine Illustrations. [Philadelphia: J. P. Blakiston's Son & Co. 1898. Price, 80 cents net.

This is No. 16 of Blakiston's Quiz Compends, which have become such favorites with medical students. This one will certainly be as well liked as its predecessors, as it contains the essentials of the subject with which it deals and has a sufficient number of illustrations to elucidate the text. Whilst some omissions are noted of points that should have been mentioned, it is perhaps asking too much to expect completeness in a short compend. Upon the whole it is a practical little volume, which will form a good introductory aid to the study of cutaneous medicine.

Hay Fever and Its Successful Treatment. By W. C. HOLLOPETER, A.M., M.D. 12mo., pp. 137. [Philadelphia: P. Blakiston's Son & Co. 1898. Price, \$1.00 net.

If the claims made by the author in this little work are true, it is indeed a veritable godsend. It seems almost too good to be true that a cure for hay fever has at last been found. The author is a well-known medical man, who has always been honest in his claims and scientific in his pursuits. Whilst dealing with the etiology and pathology, as well as symptomatology, of the affection under discussion, he devotes the major part of his monograph to its treatment. No physician should be without it, as the substantiation of the claims made will be a veritable boon to a large portion of the community which is afflicted by that terrible malady, hay fever.

LITERARY NOTES.

Books Received.—The following books have been received during the past month and are reviewed in the present number of the JOURNAL:

System of Diseases of the Eye. By American, British, Dutch, French, German, and Spanish authors. Edited by William F. Norris, A.M., M.D., and Charles A. Oliver, A.M., M.D., of Philadelphia, Pa., U. S. A. Vol. III. Royal 8vo., pp. 962. Local Diseases, Glaucoma, Wounds and Injuries, Operations. With Fifty Full-page Plates and One Hundred and Eighty-six Text Illustrations. [Philadelphia: J. B. Lippincott Company. 1898. Price of the Entire Work in Four Volumes: Cloth, \$20.00; Sheep, \$24.00; Half Russia, \$26.00. Sold by subscription only.

Conservative Gynecology and Electro-Therapeutics. A Practical Treatise on the Diseases of Women and their Treatment by Electricity. By G. Betton Massey, M.D. Third Edition, Revised, Rewritten and Greatly Enlarged. 8vo., pp. 400. Illustrated with Twelve Full-page Original Chromo-lithographic Plates, numerous Full-page Original Half-tone Plates of Photographs taken from Nature, and many other Engravings in the Text. [Philadelphia: The F. A. Davis Co. 1898. Price, \$3.50 net.

Atlas of Legal Medicine. By Dr. E. Van Hoffmann. Authorized Translation from the German. Edited by Frederick Peterson, M.D., assisted by Aloysius O. J. Kelly, M.D. 12mo. With 120 Colored Figures on 56 Plates, and 193 Half-tone Illustrations. [Philadelphia: W. B. Saunders. 1898. Price, \$3.50 net.

Text-Book of Diseases of the Kidneys and Genito-Urinary Organs. By Prof. Dr. Paul Fürbringer. Translated from the German by W. H. Gilbert, M.D. In Two Volumes. Vol. II. 8vo., pp. 310. [London: H. K. Lewis, 136 Gower Street. 1898. Price, 10/6.

Atlas and Abstract of the Diseases of the Larynx. By Dr. L. Grünwald. Authorized Translation from the German. Edited by Charles P. Grayson, M.D. 12mo., pp. 103, with 107 Colored Figures on 44 Plates, and 25 Text-illustrations. [Philadelphia: W. B. Saunders. 1898. St. Louis: L. S. Matthews & Co., 714 Pine St. Price, \$2.50 net.

A Compend of Diseases of the Skin. By Jay F. Schamberg, A.B., M.D. 12mo., pp. 307. With 99 Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1898. Price, 80 cents net.

Hay-Fever and its Successful Treatment. By W. C. Hollopeter, A.M., M.D. 12mo., pp. 137. Philadelphia: P. Blakiston's Son & Co. 1898. Price, \$1.00 net.

Notes on Malaria in Connection with Meteorological Conditions at Sierra Leone, by Surgeon-Major E. M. Wilson, C.M.G. has reached its second edition. Whilst embracing but sixteen small octavo pages it contains tables of the utmost value. The author proves conclusively from his statistics that humidity has a direct influence on the mortality produced by malaria. This little monograph is published by Mr. H. K. Lewis, 136 Gower St., London, the price being one shilling.

Blood Chart which has been designed by J. C. DaCosta, Jr., M.D., and published by the J. B. Lippincott Co., of Philadelphia, will be found to be one of the best as well as the most handy which has been hitherto devised for blood examinations. It will no doubt be adopted by all those who make thorough examinations of the blood, and will prove invaluable as a clinical memorandum of conditions found.

Announcement.—Philadelphia, 1012 Walnut Street, June 30, 1898. The partnership hitherto existing between Presley Blakiston and Kenneth M. Blakiston, under the firm name of P. Blakiston, Son & Co., expired June 30, 1898, on account of the death of the senior member.

The business of publishing, importing, and dealing in medical and scientific books, as established in 1843, will be continued by Kenneth M. Blakiston, trading as P. BLAKISTON'S SON & Co. Prompt payment of all outstanding accounts is requested in order to facilitate the settlement necessary to this change.

MELANGE.

Antitoxin is not "Vaccine Virus."—This is now judicially settled by the decision of the United States circuit court of appeals, in *Koechl vs. United States*, January, 1898. The question arose over the assessment for duty of certain antitoxin, which the collector of customs of the port of New York held dutiable as "medicinal preparation," while the importers contended that it should be admitted free of duty, as "vaccine virus" under the tariff act of 1894. They cited for this the *Century Dictionary*, which gives as a secondary definition of "vaccine" when used as a noun: "In a general sense the modified virus of any specific disease introduced into the body in inoculation, with a view to prevent or mitigate a threatened attack of that disease, or to confer immunity against subsequent attacks." No authority for this use is cited. The quotation expresses merely the opinion of the compiler or compilers of the dictionary, and the court of appeals goes on to say, more than the mere ipse dixit of a contributor to such a work is required to satisfy it that the words "vaccine virus" are actually used with such meaning by educated people, especially in view of the fact that none of the other standard dictionaries give any such definition of the phrase. So it holds that the collector's classification upheld by the circuit court was correct, while that contended for by the importers and adopted by the board of general appraisers was not.—*Jour. Am. Med. Ass.*

"The Ship's Doctor."—Intense interest to-day centers about our gallant navy; and the recent daring exploits of our sailor heroes add new luster to the brave record of the past. Americans are proud to inscribe new names standing for heroic deeds—the names of Dewey, Hobson and Powell.

Whatever tells of warships and the gallant deeds of brave sailors is eagerly perused by the American people. Our navy is the popular theme of story and picture. The brave exploits of our sailors are the absorbing topics in newspaper, review and magazine; and everywhere are seen the pictures of great battleships, graceful cruisers, of sea battles and sailor heroes.

But numerous as are the current chronicles of sea warfare,

vivid as are many of the portraiture of battle, danger and death, there has been one void in the record of heroic deeds. Deep down in the bowels of the ship there is hidden in times of battle a phase of sea life of which the world knows nothing, which has not been written of, and which artists have rarely seen or imagined. Few, indeed, are the phases of human life which have not been dissected by the literary anatomist, nor fixed in vivid horror upon the canvas of the artist; and the beautiful brochure, entitled "The Ship's Doctor," which is being issued to physicians by the Arlington Chemical Co., of Yonkers, N. Y., is of unique interest. Nor is this interest due solely to the novelty of the subject; for, independently of this, the booklet is notable as marking the highest point yet reached in certain features of artistic bookmaking. The deadly battle horrors of the surgeon's merciful vocation are full of dramatic opportunities for the artist; but only an artist of power can make such gruesome scenes impressive instead of merely horrible. Mr. W. Granville Smith is such an artist, and he has made for "The Ship's Doctor" a series of battle pictures which touch the highest mark of the illustrator's art. A great naval battle is depicted with thrilling realism, and the grim realities of war are uncovered by portrayals of the cock-pit during an action, and of episodes of the surgeon's battle duties. Seldom is realism and local color, the very feeling of a scene, better rendered than in these strong drawings; and the force of the artist's worth is preserved by the remarkable character of the mechanical reproduction. A marvellous advance in illustrative art has followed; and the powerful illustrations of "The Ship's Doctor" are among the most perfect examples of a beautiful new art.

The beauty of this booklet, its professional interest, and its timeliness, are certain to make a lively call for it; and physicians who have not received a copy should at once send for it, as the edition is limited, and will be issued in the order as requests are received. The more important pictures are admirable subjects for framing; and if there are received a number of requests sufficient to warrant the great expense, a series of plates in large size, with liberal margins suitable for framing, will be made, and supplied free to physicians. Physicians who would like to have them for framing should make their requests to The Arlington Chemical Co. of Yonkers, N. Y., makers of Liquid Peptonoids, without loss of time.

MISCELLANEOUS NOTES.

Hagee's Cordial of Cod Liver Oil Comp. may be prescribed irrespective of the condition of the digestive organs or the season. It can be administered without difficulty, and it has a decided advantage in being entirely devoid of any fishy or greasy flavor, and so is readily taken by the most sensitive patient.

Aletris Cordial in Treatment Miscarriage.—W. A. Ward, M.D., New Edinburg, Ark., says: I have used Aletris Cordial in threatened miscarriage, in several instances, with the best results; one case in particular, the lady was of nervous temperament and very easily excited, but by giving Celerina combined with Aletris Cordial for a short time, she passed over it safely. I am of the opinion that any physician prescribing Aletris Cordial, in such cases as it is indicated, will not be disappointed in the result.

Successful Treatment of Typhoid Fever.—Dr. Rice, in referring to the marvelous antiseptic and curative effects of Viskolein in the treatment of typhoid fever, quotes from his practice in Southern Illinois the following rather remarkable cases:

John W., aged nineteen years; one of my early cases in the use of this remedy. I was called on November 3, 1895. I found him as follows: Temperature 100° F.; pulse 85; tongue rather dry, with dark yellow fur; headache and restlessness; bowels constipated. I prescribed the following pill:

Podophyllin.....	1/100 grain
Calomel.....	1/16 grain
Guaiacol carb.....	3/4 grain
Menthol.....	1/16 grain
Thymol.....	1/16 grain
Eucalyptol.....	q. s.

I gave him one pill every two hours, and kept him on that treatment for nearly four weeks; he gradually grew worse all the time, and every one in attendance upon the boy, myself included, thought he was going to die. I determined to try my own formula, then but recently devised. On December 2d I found him as follows: Temperature 105½° F.; pulse 130; tongue coated with a dark brownish fur, badly cracked and hardly able to protrude it when asked to do so; hard to make him understand; very restless and listless; diarrhea and great prostration; bowels tympanitic; early death seemed imminent, he then being just at the stage of collapse. I gave him Viskolein, hypodermically, 10 minims of the liquid added to 10 minims of boiled water, ordered 10 grains of the powder every four hours; that was at 9 A.M. I called again at noon and found no particular change. I ordered his tongue to be bathed with carbolized glycerine every hour, and cold applications to the head, over the heart, and around the wrists. I called at 6 P.M. and found some improvement; temperature 102° F.; pulse 110,

and bowels not quite so tympanitic. I gave another hypodermic injection of 10 minims. I called next morning at 9 and was told of the decided improvement of the patient; that the fever broke at 5 o'clock that morning. I found the temperature normal; pulse down to 85; tongue moist; no tympanites; bowels moving less, and the beginning of convalescence. I continued the powder, 10 grains every four hours, for the next twenty-four, after which I gave him a tonic of hypophosphites with strychnin, and he made a rapid recovery. Rev. Dr. Moslander of Sandoval watched this case daily with me; he is a graduate of Rush Medical College, and can verify the above statement. I have had a number of such cases as the above, and all were treated at various stages of the disease with the same result.

Viskolein is the active (stimulant) principle of kola with the carbolized (antiseptic) sulphoborate of zinc. Viskolein has been placed in the hands of The Maltbie Chemical Co. of Buffalo, N. Y., who have the sole right to manufacture it. They are gentlemen of high reputation as pharmacists, and have complete facilities for its manufacture in large quantities at a moderate cost, and have placed it before the profession in good shape. Therefore, I recommend them and the trial of this remedy in your practice.

Campho-Phenique at the Front.—

CAMP GEORGE H. THOMAS,
CHICKAMAUGA PARK, GA..

THE PHENIQUE CHEMICAL CO.,

June 18, 1898.

St. Louis, Mo.

Gentlemen: It is a pleasure for us to write you of the results obtained from the use of Powdered and Liquid Campho-Phenique. The liquid we use exclusively as a local application in the treatment of oak and ivy poisons, and find it excellent in relieving the intense burning and itching peculiar to that form of skin eruption. The powder is very useful as a dry dressing in all wounds where that form of dressing is desired. Campho-Phenique, both powder and liquid, has healing properties peculiar to itself. It is an antiseptic preparation of great value and usefulness.

Very truly,
ROBT. M. COWAN, Chief Steward. CHAS. H. STEARNS, Asst. Surg..
EDWIN E. CHURCHILL, Hospital Steward. 2d Reg. Mo. U. S. A. Vol.
GEORGE H. TRADER, Hospital Steward.

The Prompt Solution of Tablets.—We are glad to know that the Antikamnia people take the precaution to state that when a prompt effect is desired the Antikamnia Tablets should be crushed. It so frequently happens that certain unfavorable influences in the stomach may prevent the prompt solution of tablets that this suggestion is well worth heeding. Antikamnia itself is tasteless, and the crushed tablet can be placed on the tongue and washed down with a swallow of water. Proprietors of other tablets would have had better success if they had given more thought to this question of prompt solubility. Antikamnia and its combination in tablet form are great favorites of ours, not because of their convenience alone, but also because of their therapeutic effects.—*The Journal of Practical Medicine.*

Headache and Neuralgia.—I find Garofen the promptest pain reliever in neuralgia without the nausea we get in morphine, and minus the heart depression after administering the coal-tar preparations.

The above has been my experience upon myself as well as my patients.
L. C. ARMSTRONG, M.D., Taylorville, Ill.

THE ST. LOUIS Medical and Surgical Journal.

Whole No. 693.

VOLUME LXXV.—SEPTEMBER, 1898.—No. 3.

ORIGINAL COMMUNICATIONS.

REMARKS ON PEMPHIGUS FOLIACEUS.

BY DR. CHARLES SZADEK, KIEFF, RUSSIA.

Of the three varieties of true pemphigus the foliaceous variety—pemphigus foliaceus Cazenave—is a rare affection of the skin, which has proved itself interesting, not only from a clinical point of view, but also because of its diagnostic importance and relation of this disease to pemphigus vulgaris.

This grave variety of pemphigus was first discovered by Cazenave in 1844, and accurately described;¹ but, previous to this date, in 1819, the same author and Schedel gives a brief description of a peculiar case of pemphigus, which may be considered as a foliaceous variety of this disease.²

Pemphigus foliaceus is a truly horrible disease, in which a very few true bullæ form; they are not extensive and filled as those of pemphigus vulgaris, but tend to spread over a large proportion of the skin surface, and finally the eruption always covers the body entirely. For this form of pemphigus the liquid constantly pushes further and further beneath the epidermis, until finally the entire skin looks as if it were flayed, or else is covered with a brownish-yellow rind. The mucous membranes of the mouth and genitalia, the conjunctiva, and the nails participate frequently in the morbid process, and in some cases the mucous membranes may be the parts first involved.

It usually takes one and a half years for the disease to arrive at this stage of progress; meantime portions of the skin heal, but only to be attacked anew. Resolution does not take place, nor do the lesions heal so readily as in pemphigus vulgaris.

The essential distinguishing features of pemphigus foliaceus are: a flaccid condition of the bullæ, the consecutive desquamation around the same, the lack of regenerative action in the case of the lesions, the generalization of the eruption on the body and extremities, the persistent exfoliation of epidermal flakes in affected parts of the skin, the slight itching, the absence of infiltration, and, finally, the general cachectic condition of the whole organism.

The fresh crops of eruptions succeed one another so rapidly that the epidermal layer has not time to become condensed into a uniform covering, and thus instead of new blebs fluid is poured out, which dries into crusts, compared by Cazenave to flaky pie-crust.

This form of pemphigus may be present from the beginning of the morbid process, but rather it may supervene after a longer or shorter duration of pemphigus vulgaris, the numerous cases of late disease turning into pemphigus foliaceus being observed by various authors.

Pemphigus foliaceus is fortunately a very rare disease, which has so far almost invariably proved fatal. However, in some carefully treated cases there has occurred for a time an improvement.

In the later stages of the disease, when the entire body is covered with numerous epidermal crusts, the laying base of the epidermis through the exfoliation of its upper layers allows micro-organisms of all kinds to obtain easy pathogenic access, which, lodging in a suitable nidus, cause the inflammatory changes of the cutaneous surface and processes, phlegmon, furuncles, etc.; that pyemia may develop from these secondarily in consequence of the formation of pus is perfectly possible.

After these general remarks on pemphigus foliaceus, I will give a review of the literature of this rare disease and a brief analysis of some recorded cases.

The history of pemphigus foliaceus after Cazenave was admirably and fully set forth by Hebra³ in his classic hand-book of

skin diseases. The same author detailed a typical case of pemphigus foliaceus in 1853.⁴

Pfenninger⁵ relates a highly typical case of pemphigus foliaceus which was developed from pemphigus vulgaris in a woman of sixty-two years; the patient died of diarrhea and exhaustion after two years and four months.

The case of Malmsten⁶ terminated fatally in six months. In the case reported by Tanzer⁷ death occurred after four months. The morbid process began on the face and mucous membrane of the mouth.

Robert⁸ describes a very interesting case of pemphigus vulgaris turning into typical foliaceous form of the disease, and ending fatally. The whole surface of the skin was covered with dried yellowish crusts. There appeared diarrhea, whose origin was probably due to the extension of the bullous lesions to the intestinal tract. On post-mortem examination were found numerous ecchymotic spots and deep round exulcerations of the mucous membrane of the stomach and intestines.

The subject of Eulenburg's case⁹ was a woman aged sixty-two years. The case terminated fatally, after a three years' duration of the disease. A post-mortem examination showed fatty degeneration of internal organs.

Similar cases of pemphigus foliaceus have also been recorded by Krieger,¹⁰ Kunkel¹¹ (two cases), Guibout,¹² Marmond,¹³ Tilbury Fox,¹⁴ Max Zeissl,¹⁵ Piwowski,¹⁶ Obtutowicz,¹⁷ Dzskowski,¹⁸ Borysikiewicz,¹⁹ Graham.²⁰ Of these cases, I will briefly refer to the case of Graham as a very interesting one. The bullous eruption spread over the whole surface of the trunk and extremities. During the further course of the disease followed a constant exfoliation of the epidermis; the skin consequently was covered with numerous dry scales. Finally the patient succumbed to exhaustion and diarrhea. On autopsy, on the surface of the mucous membrane of the stomach, there were found numerous spots and exulcerations which resembled some of the patches on the skin. The mucous surface of the large intestine was very much congested and thickened in some places. Death seems to have been hastened by the eruption, so to speak, on the mucous surface of the stomach.

Other cases of pemphigus foliaceus were recorded by Meyer,²¹

Riegel,²² Crawford,²³ Darbigalles,²⁴ Lassiure,²⁵ Stephen Mackenzie,²⁶ Sherwell,²⁷ and Hardaway.²⁸

A very peculiar case of Meyer's may be briefly described : The patient was a healthy, well-nourished man of sixty-five years of age. The bullous lesions appeared at first on the buttocks and lower extremities, with sudden loss of appetite and other signs of general disturbance. The patient began to fail rapidly, the disease now taking on the form of a malignant pemphigus foliaceus, and finally followed by death. The whole disease ran a rapid course of seven weeks. Though the case presented certain symptoms common to dermatitis herpetiformis Duhringii, it must be regarded as an acute variety of typical pemphigus foliaceus, because the characteristic flaccid bullæ, general exfoliation and progressive cachectic condition of the affected organism were present.

In the case of Sherwell, described as an example of pemphigus foliaceus, after three relapses of bullous eruptions, and of eleven years' duration, there followed a complete recovery (!). The third attack of the disease ran a rapid course of nineteen days (!?). The cutaneous lesions during this attack were similar to the symptoms of dermatitis herpetiformis of Duhring or erythema bullosum. Must the case be recognized as one of pemphigus foliaceus ?

During the last seven years a new series of cases has been related by the following authors : Unna,²⁹ H. Klotz,³⁰ Munro and Swarts,³¹ Sormani,³² Besnier,³³ Quinquaud,³⁴ Hallopeau and Henry Fournier,³⁵ Neumann,³⁶ Heryng,³⁷ Timermann,³⁸ Zeisler,³⁹ Cuthbert,⁴⁰ Sargum,⁴¹ Hastings,⁴² and Nikolski.⁴³

Three cases of Petrini⁴⁴ and one case of Regensburger,⁴⁵ described under the name of pemphigus foliaceus, must be classed as pemphigus vulgaris, it having very typical features of this last disease. The cases of Berry,⁴⁶ Hall⁴⁷ and Beddle⁴⁸ may be regarded as examples of dermatitis herpetiformis Duhringii or erythema bullosum.

The first case of Besnier, a case of Quinquaud, two cases of Hallopeau, and a case of Timermann are also doubtful. The history of many of these cases is very incomplete, the diagnosis of the pemphigus foliaceus is open to question. The cases of Hallopeau, Fournier and Timermann present certain symptoms

common to dermatitis herpetiformis or dermatitis exfoliativa universalis.

A very interesting and peculiar case of Klotz was one of pemphigus vulgaris, turning into the foliaceous form and ending fatally within about eight months. The patient was a cigar manufacturer, forty-nine years of age, with a good family record, a man of strong physique. The whole surface of the body was affected and covered with black crusts; there finally appeared a profuse diarrhea, which was probably due to the extension of the bullous lesions over the intestinal tract. Unfortunately no autopsy could be obtained.

The case of Munro and Swarts was also one of typical foliaceous form of pemphigus, with a temporary improvement in the general condition during the course of the disease, which nevertheless ended fatally. The patient was a woman of thirty-seven years of age. The disease ran a rapid course of some months.

The case of Sormani was of a short duration, and occurred in a man of fifty years. The eruption began as discrete flaccid bullæ on the hands, but quickly the bullous eruption appeared also on the trunk and extremities. The affected surfaces of the skin were covered with numerous fine epidermic scales, which filled the whole bed. During the following five months the desquamation constantly persisted, and finally, after a nine months' duration of the disease, the patient died of exhaustion.

Neumann and Cuthbert relate cases of pemphigus vulgaris turning in their following course into the typical foliaceous variety.

In two cases recorded by Heryng, the bullous eruption began both on the mucous membrane of the mouth, tongue, soft palate and epiglottis; subsequently, the bullous lesions appeared on the whole body, and finally there followed a general exfoliation of the cutaneous surface.

Nikolsky describes, under the name "pemphigus foliaceus," five cases of bullous eruption, of which only two may be recognized as typical examples of this rare affection. The first case occurred in a sailor, aged thirty-three years. The disease began as a bullous eruption on the back, which quickly extended over the trunk and extremities; the bullæ were flaccid, then followed a general desquamation of the whole skin surface, and finally the patient died of exhaustion. The second case, occurring in a gentleman of sixty-three years, was that of pemphigus vulgaris,

turning after a duration of eight years into pemphigus foliaceus. The foliaceous stage in this case ran a rapid course of seven months. The third case must be regarded as a typical example of pemphigus vulgaris hemorrhagicus, with a rapid, malignant course of seven weeks. The history of the fourth case was incomplete; the diagnosis is open to question. The patient, a young man of eighteen years, had been observed only two months, though during that time several outbreaks of bullous eruption took place. Here and there appeared the formation of the solid epidermis, a feature which is unusual for typical foliaceous form of pemphigus. The further course of this case remains unknown.

The fifth case of Nikolsky occurred in a woman of forty-four years of age, and was recognized by him as a very severe type of pemphigus foliaceus, as also observed by myself in its latter course, and recorded in the *ST. LOUIS MEDICAL AND SURGICAL JOURNAL*, 1898, February, as an exquisite and typical case of dermatitis herpetiformis of Duhring, showing an extreme tendency to generalization of the eruption over the whole surface of the skin. Then it is clear that Nikolsky has fallen into a diagnostic error and has confounded a typical example of dermatitis Duhringii with pemphigus foliaceus. After that all his conclusions and broad reasoning, based carefully upon this case, and concerning the pathology, symptomatology and prognosis of pemphigus foliaceus*, must be regarded as faulty and badly founded. Also the results of microscopical examinations of the affected skin, so minutely described by the author in his long monograph on pemphigus foliaceus, are not well placed, as they belong to a different disease.

In a case of pemphigus foliaceus under my care some years ago, occurring in a gentleman of forty-two years, the previous history of the patient showed that his health had been good previously, and he had had no serious illness except a bullous eruption, which had begun six years before and had never entirely disappeared. The disease in 1889 had been recognized by Kaposi as pemphigus pruriginosus.

The patient, a well-nourished man, showed in 1890 the following condition of the skin: on the face, trunk, and extremities were found numerous confluent red places with adherent epider-

* *l. c.* pp. 160-170.

mic places; here and there had been scattered numerous irregular flaccid bullæ of various sizes. The mucous membrane of the mouth was also affected and showed numerous eruptions. The patient suffered from insomnia; there were frequent elevations of temperature. In the further course of the disease, after repeated outbreaks of new bullous lesions, always preceded and accompanied by a chill, the eruption subsequently spread over the whole surface of the body, excluding the palms and soles; there followed a general exfoliation of the epidermis, and the skin assumed a reddish hue; abundant free scaling constantly occurred and filled the whole bed, and the disease presented all the typical features of pityriasis rubra; a few new bullæ appeared and some of these were purulent, but in most the contents were clear. When a blister first broke the exposed parts would exude a clear serum and the floor of the lesion would be bright and glistening, but after a short while the secretion would become viscid and eventually dry into doughy crusts. Over the whole body the epidermis hung in loose shreds, leaving in places extensive raw surfaces; there was present a sickening, cadaverous odor. The treatment, which consisted chiefly of the external use of arsenical preparations and permanent water baths remained without any success. The patient was excessively feeble and emaciated. After one and a half years he died of exhaustion. An autopsy was not made.

We have here mentioned thirty-eight cases of typical pemphigus foliaceus recorded by various writers. The eruption in these cases presented all the essential symptoms characteristic of the foliaceous variety of pemphigus: the presence of flaccid blebs, the generalization of the bullous eruption over the whole surface of the body, the prompt participation of the mucous membranes, and persisting exfoliation of the upper epidermic layers. In all of these cases there were no other primary lesions of the skin than bullæ, which, during the further course of the disease, always became flaccid and only partly filled with fluid; they burst very soon, and this was followed by a progressive and peripheral detachment of the surrounding epidermis in the form of lamellæ, similar to flakey pie-crust. In the further course the morbid process invaded the whole integument, resulting in a marked exhaustion and marasmus, which sooner or later lead to a fatal issue. In some cases the cutaneous lesions were

early accompanied by diarrhea, which probably was due to the extension of the bullous affection over the intestinal tract (the cases of Robert, Graham, and Klotz).

Referring now to the typical cases of pemphigus already mentioned, I will find many points of considerable interest in them, as the histories of almost all of them have been preserved.

The following table presents the ages of the patients:

TABLE I. AGES OF THIRTY-EIGHT PATIENTS.

Age.	Males.	Females.	Total.
From 11 to 20 years.....	1	1	2
“ 21 to 30 “	3	3
“ 31 to 40 “	3	2	5
“ 41 to 45 “	3	3	5
“ 46 to 50 “	3	3	6
“ 51 to 55 “	3	1	4
“ 56 to 60 “	2	3	5
“ 61 to 65 “	3	1	4
“ 66 to 70 “	1	..	1
“ 71 to 75 “	2	..	2
76 years.....	1	..	1
Total.....	22	16	38

It will be noted here that the number of males is a little greater than that of the females—twenty-two to sixteen. The ages of the patients will be found to vary greatly, from childhood to seventy-six years of age, but the disease is found to be relatively rare in young persons and very frequent in old people. The youngest patient was a girl of eighteen years; the oldest patient was a gentleman of seventy-six years.

Table II. exhibits the whole duration of the pemphigus, also the duration of the foliaceous stage of the disease in twenty-three cases. From this table we learn that in mild cases the affection had begun as pemphigus vulgaris, which only later on turns to be foliaceous; in a few cases only, with a very acute course, the disease from the beginning occurs as a typical foliaceous variety of pemphigus.

TABLE II. DURATION OF PEMPHIGUS FOLIACEUS IN TWENTY-THREE CASES.

Cases of	Whole duration of pemphigus.	Duration of its foliaceous stage.
1. Meyer	Seven weeks.	Seven weeks.
2. Munro	From four to twelve months.	From two to eight months.
3. Sormani		
4. Heryng		
5. Heryng		
6. Klotz	Eight months.	Three months.
7. Mahusken	Two years.	Ten months.
8. Stephen Mackenzie		
9. Eulenburg	From three to six years	Two years.?
10. Cazenave		2-3 years.
11. Tänzer	From three to six years.	Some months.
12. Robert		
13. Krieger		
14. Kunkel		
15. Kunkel		Two years?
16. Piowowski		1½ years.
17. Zeissl		Two years.
18. Graham		
19. Riegel		
20. Cuthbert		
21. Nikolski		
22. Szadek		
23. Nikolski	Eight years.	Eight months.

Of the cases here, namely twenty-three, where the duration was recorded, in six the course of pemphigus being very acute, the whole affection occurred in from two to twelve months; in these cases the foliaceous character of the disease appeared then from the beginning of the pemphigus. In all the remaining cases, namely sixteen, the skin affection began as pemphigus vulgaris, which, after a period of one year's duration, turned into pemphigus foliaceous. Of these sixteen cases, in two the disease had lasted two years, in fourteen between three and six years; only one case is recorded as of eight years' duration. The longest period of duration of the foliaceous stage was three years (the cases of Eulenburg, Zeissl, Riegel, Cazenave, Nikolsky, author);

in several cases this stage had only lasted from two to ten months.

In almost all cases of typical pemphigus foliaceus, with very rare exceptions, the mucous membranes of the mouth, tongue, and throat quickly participate in the affection; in a number of the cases the bullous lesions occur on different mucous membranes long before any eruption on the skin. This feature is very important in diagnostic respects and usually indicates the grave character of the disease.

In regard to the *etiology* of pemphigus foliaceus there is still some diversity of opinion among authors. A number of dermatologists have regarded the disease as a tropho-neurosis of the skin; others as one of infectious origin. The arguments of the various authors for a nervous origin of pemphigus foliaceus are, although fairly strong, not susceptible of absolute demonstration; almost in all cases of this disease a careful postmortem examination showed important alterations of the spinal cord, which did not throw any light on the neurotic nature of pemphigus foliaceus. The second hypothesis of the infectious origin of the disease is more probable, although it is also not based on positive facts.

The *diagnosis* of pemphigus foliaceus is usually not difficult. In the great majority of cases the characteristic clinical symptoms of the disease are so pronounced that to the experienced eye a mistake is hardly possible; only many non-typical cases will occasionally arise which present difficulties of diagnosis.

Pemphigus foliaceus can be mistaken sometimes with other cutaneous affections characterized by generalized desquamation of the epidermis (pityriasis rubra, eczema rubrum universale, psoriasis universalis, etc.); that can, however, be the case only when the exfoliation of epidermis is produced in part by exudation causing the formation of bullæ. *In true pemphigus foliaceus the bullous lesions of the skin are the first and essential feature of the disease.* In other exfoliative affections of the skin they are only secondary, and not a necessary factor; the extension of the latter over the surface of skin is, moreover, independent of the bullæ; in the former, dependent upon their development.

The subject of the differential diagnosis between pemphigus

foliaceus and dermatitis herpetiformis of Duhring is not one offering a great difficulty in some cases, but yet of the very highest importance. The thorough recognition of a grave and fatal disease is always of the greatest necessity in regard to its prognosis. Dermatitis herpetiformis of Duhring has the following essential and characteristic features, which are met with in every typical case: (a) a marked polymorphism of cutaneous eruption, consisting of the erythematous, vesicular, papular, pustular, squamous and bullous lesions, separate, combined or alternating in successive crops; (b) considerable subjective symptoms—an extensive sensation of itching, burning or actual pain; (c) the long duration of the affection, varying from several months to ten or more years; finally (d), the good general condition of the patient, notwithstanding the intensity and extent of the cutaneous lesions, and a complete absence of severe constitutional symptoms, viz., of cachexy of the affected organism, which always accompanies pemphigus foliaceus. The bullous variety of dermatitis herpetiformis is more liable to be mistaken for pemphigus than other forms of the disease; but in pemphigus foliaceus the bullæ show no special tendency to occur in groups, also to assume an irregular or angular form; the pemphiginous blebs, moreover, always appear from sound skin; then in pemphigus itching is very slight, whereas in the disease of Duhring it is one of the most troublesome symptoms. In conclusion, it must be mentioned that pemphigus foliaceus is a very grave disease, affecting early the general system and producing a very pronounced cachexy; although in some cases temporary improvement may occur by careful treatment, a relapse is very frequent, and in time a fatal termination of pemphigus foliaceus is inevitable.

As regards the duration of life, the prognosis is more unfavorable in cases of pemphigus foliaceus with acute and subacute course, and with early occurring cachexy. Sometimes the patient's life may be prolonged to three or four years, but in many cases the disease runs a very rapid course, and terminates fatally in less than one year (the cases of Meyer, Klotz, Heryng). In a number of cases the patient succumbs to the exhaustion and cachexia accompanying the disease, but in not all cases death may be said to have been due directly to the disease; in many cases the immediate cause of the fatal issue is unquestionably the secondary general infection or accidental intercurrent malady. The

signs of an approaching death are a progressive cachectic condition and persistent diarrhea.

The treatment of the disease should be both local and general; the latter must naturally be not only a symptomatic, but it should combat the specific cachexia. Arsenic, a most valuable remedy in other bullous affections, is frequently inefficacious in cases of pemphigus foliaceus. Shoemaker⁴⁹ and Zeissler⁵⁰ recommend the administration of quinine in large doses; recently Neisser⁵¹ speaks strongly in favor of strychnine administered subcutaneously. Great attention must be paid to the general health; the diet should be nourishing, and consisting principally of meat, eggs and milk; the bowels should be kept in a soluble condition, and any derangement should be promptly remedied.

The internal treatment in all stages of pemphigus foliaceus should be also not only symptomatic and relieving the discomfort produced by the eruption, but it must be strongly antiseptic; in each case the protection of the skin from any irritation and invasion of specific micro-organisms is advisable. It is best to wrap the patient in soft cotton; and applications of an antiseptic ointment or oil should be made over the affected parts of the body. The best antiseptic remedy—the permanent bath—is often very necessary and always beneficial for the unfortunate patients.

Nevertheless, we know of no remedy capable of forestalling the inevitable fatal termination of pemphigus foliaceus.

Theater-Street, 1.

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THE DEVELOPMENT OF SERUM THERAPY.

Natural immunity, the fact that certain individuals or races are less susceptible than others to certain diseases, was noted by the earliest writers on medicine.

So it has long been known that in some of the infectious diseases one attack of the disease confers more or less immunity against subsequent attacks—an acquired immunity.

Artificially acquired immunity dates from the discovery of Jenner (1766), that the lymph taken from the vesicles of cow pox would protect the vaccinated individual from small-pox.

Pasteur¹ in 1880 began the publication of a series of brilliant experiments on the production of artificial immunity. He found that if his microbes were weakened by age, or heat, or exposure to the atmosphere, animals inoculated with these weakened cultures would have a mild attack of the disease and were thereafter immune to the disease in question even after inoculation with the most virulent cultures.

He perfected his methods of attenuating his microbes and succeeded in immunizing animals against several of the infectious diseases.

Pasteur clearly saw the immense significance of the work and made the prediction: "It is possible for man to eradicate every contagious disease from off the face of the earth."

The epoch-making discoveries of Pasteur attracted many workers to this field and justified the statement of one of his pupils: "There are two periods in the history of medicine, the one before, the other after, Pasteur."

Pasteur worked with the germs themselves. The next discovery of importance was that the toxic products of the germs, the filtered cultures from which all the germs were removed, could produce immunity. This discovery was made piecemeal. The first satisfactory demonstration of it was given by Salmon and Smith,² in 1886. These workers succeeded in immunizing pigeons against the germs of hog cholera by previous injections of the sterilized cultures obtained from these germs.

Similar results were reported by Roux,³ in 1888, with anthrax and symptomatic anthrax. The first published results on immunization in diphtheria were those of Loeffler.⁴ He showed that in May, 1888, he had inoculated a guinea pig with diph-

theria. The animal sickened, but recovered after three weeks. It was then inoculated a number of times with virulent cultures, but showed itself entirely immune.

C. Fraenkel (*Berlin Klin. Woch.*, Dec. 3, 1890) published his results on the immunization of animals against diphtheria. He showed that there were several ways in which this could be accomplished.

On the following day (*Deutsch. Med. Woch.*, Dec. 4, 1890) Behring and Kitasato published their results on the immunization against diphtheria and tetanus.

They succeeded in immunizing animals against tetanus and diphtheria by the injection of the filtered cultures from these germs. In 1891 the Klemperer Brothers⁵ reported similar results with pneumonia. Meantime a number of investigators in various parts of the world were busy with another part of the problem.

"As early as 1872, Lewis and Cunningham⁶ demonstrated the fact that bacteria injected into the circulation rapidly disappear.

"In 1874, Traube and Gschiedlen⁷ found that arterial blood taken under antiseptic precautions from a rabbit into the jugular vein of which $1\frac{1}{2}$ cc. of a fluid rich in putrefactive germs had been injected forty-eight hours previously, failed to undergo decomposition for months. These investigators attributed the germicidal properties of the blood to its ozonized oxygen. Similar results were obtained by Fodor⁸ and by Wysokowicz.⁹ The latter accounted for the disappearance of the germs, not by supposing that they were destroyed by the blood, but that they found lodgment in the capillaries.

"The first experiments made with the extra-vascular blood were conducted by Grohmann¹⁰ under the direction of A. Schmidt in his researches upon the cause of coagulation. It was found that anthrax bacilli, after being kept in plasma, were less virulent, as was demonstrated by their effect upon rabbits. Grohmann supposed that in some way the bacteria were influenced by the process of coagulation.

"In 1877, Fodor¹¹ made a second contribution to this subject and in this he combatted the retention theory of Wysokowicz. One minute after the injection of 1 cc. of anthrax culture into the jugular vein in eight samples of blood, Fodor found only one

colony of the bacillus. Then he took the blood from the heart with a sterilized pipette and added anthrax bacilli to it. This was kept at 38° C., and plates made from time to time showed a rapid diminution in the number of germs; after a time, when the blood had lost its germicidal properties, the number of germs began to increase.

In 1888, Nuttall¹² showed that defibrinated blood had this germicidal power. Since then Nissen,¹³ Behring,¹⁴ Buchner,¹⁵ Christmas,¹⁶ Hankin,¹⁷ Bitter,¹⁸ and others have worked on this question. All of these observers find that the blood, within or without the body, has germicidal powers.

"These experiments demonstrated the fact that the body had the power to kill at least some bacteria, but gave us little if any insight into how it was done."

Immunity to Poisons.—That certain animals possessed more or less immunity to certain poisons was a matter of common knowledge. The carnivorous animals, as the wolf and the vulture, thriving on putrid, toxic flesh. So it was known that many snakes and a few mammals, as the hedgehog, swine and the ichneumon, were very resistant to snake poison.

In 1887, Sewall¹⁹ reported that he had immunized pigeons against the poison of the rattlesnake. He says: "This work was undertaken with the hope that it might form a worthy contribution to the theory of prophylaxis. I have assumed an analogy between the venom of poisonous serpents and the ptomaines produced under the influence of bacterial organism." These experiments of Sewall's are, in so far as we know, the first attempt to immunize animals against poison.

An all important discovery was that the immunity of one animal could be borrowed and transferred to another animal. The idea of the transfusion of the blood of healthy individuals or animals into persons weakened by disease or age is centuries old. King, physician to King Charles, in 1665, practised transfusion from the veins of one person into that of another. Denis, in France, who died in 1704, transfused the blood of the lamb into a weak patient. This operation was in common use until within the last few years. The first record we find of the use of the blood of an immunized animal for the protection of other animals is in 1887. Foa and Bonome²⁰ published their results: They rendered animals immune to the proteus vulgaris,

the diplococcus of pneumonia, and the bacillus of chicken cholera, by treating them with sterilized cultures of germs, and discovered that the blood drawn from the heart, or an infusion of the tissues of rabbits dead from proteus infection, injected intravenously into another rabbit, made this animal immune to virulent cultures of the proteus germs.

Hericourt and Richet,²¹ 1888, report treating dogs with tubercle germs, and then transferring the blood from these dogs into other animals to cure and prevent disease.

So they injected cultures of staphylococcus pyosepticus into dogs; taking the blood from these dogs and injecting it into rabbits they found that the latter animals would then resist infection with the staphylococcus.

In 1890, Ogata and Jasuhara,²² working in the Hygienic Institute of Tokio, showed that mice inoculated with a lethal dose of anthrax germs could be saved if at the same time blood from an immune animal was injected subcutaneously.

Later in the year (1890) Behring and Kitasato²³ showed "that the blood of an animal which has an acquired immunity against tetanus or diphtheria, when added to a virulent culture of one or the other of these bacilli, neutralizes the pathogenic power of such cultures, as shown by inoculation into susceptible animals. And also that cultures from which the bacilli have been removed by filtration, and which kill susceptible animals in very small amounts, have their toxic potency destroyed by adding to them the blood of an immune animal.

In the experiments cited of Fraenkel, Behring and Kitasato, it was clearly shown that the blood of immunized animals when injected into susceptible animals protected them from subsequent infection with virulent germs. Behring and Kitasato went further, and demonstrated that the immunized blood would protect animals not only against living germs, but also against filtered cultures or toxins, which were very fatal to untreated animals. They showed that their protective inoculations produced an immunity which in mice lasted for forty or fifty days, after which it was gradually lost.

The next step forward was made by Kitasato²⁴ in 1891, in his further research on tetanus. He discovered that the blood serum of animals immunized to tetanus had not only prophylactic, but also curative properties. He demonstrated that mice

inoculated with tetanus germs could be cured by an injection of serum, even *after* the tetanic symptoms had appeared.

This, the last in the long list of discoveries made by many workers along this line, made serum therapy possible. From this time on the question was one of perfection of methods. The best animals to use, methods for so increasing the immunizing power of the blood that a small quantity would suffice for curative purposes, methods for determining the strength of the immunizing serum, how to preserve and administer it.

Many investigators assisted in this work. Ehrlich,²⁶ in his work on the vegetable poisons, Abrin and Ricin, showed that by beginning with very small doses and gradually increasing them the immunizing power of the blood could be increased almost indefinitely. His treated animals would withstand hundreds of times the fatal dose of the poison. Behring contributed largely to the work, and devised a method for measuring the immunizing strength of the antitoxic serum.

Roux and Yersin²⁶ showed that different cultures of diphtheria germs varied enormously in virulence.

Aronson²⁷ and others devised means for increasing the virulence and toxicity of the germs. Aronson,²⁸ after experimenting with many species of animals, could show that the horse was the most suitable for the production of antitoxic serum.

The possibilities of the serum therapy was apparent to every worker. Roux,²⁹ in 1894, when announcing the successful results of the treatment of children with his antitoxin, says: "Since the year 1891 we have carried on experiments on the treatment of diphtheria with antitoxic serum."

Behring and Wernicke³⁰ (in 1892) published a paper upon the immunizing and healing of experimental animals with diphtheria. They produced an antitoxin, and used this in treating guinea pigs, both for immunizing these animals and for curing them after they have been infected with the diphtheria germ, or with its poison. They say the aim of their experiments "is to produce the material in such quantity and potency that diphtheria in human beings can be treated therewith." Behring, in his History of Diphtheria, 1893, discussed the possibility of treating children with diphtheria antitoxin, pointing out that it is only a question of making the material more potent until the work can be begun. He shows that of the material produced up to that

time about 50 cc. would have to be given to a child of 20 kilogramme weight, supposing that diphtheria in children is of about the same intensity as in guinea pigs.

In November, 1892, in the Berlin Medical Society, Aronson⁸¹ reported on the immunization of human beings against diphtheria; and in January, 1893,⁸² he further reported that he had succeeded for the first time in so increasing the immunizing power of the serum that protective inoculations of children exposed to diphtheria was possible in practice.

In March, 1894, Aronson's serum began to be used in the Children's Hospital in Berlin. In February, 1894, Roux's serum began to be used in one of the hospitals of Paris, his preliminary report on the clinical results being made in May, 1894.

In September, 1894, in Buda Pesth, at the International Congress of Hygiene, papers were read by Behring and by Roux on the treatment of human diphtheria with antitoxin. These papers with their clinical reports of the value of the treatment at once aroused world-wide attention.

As so often happens, the persons who presented the results were probably supposed to be the sole discoverers. On the contrary, antitoxin was not the discovery of any one man or set of men, but the cumulative result of the work of many investigators. The papers cited herein are but a few of the hundreds that bear on this question.

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New York vs. Massachusetts Troops in the Matter of Beans.—It seemed a fact almost too good to be true, that the great complaint of the New York men was the superabundance of beans served out to them, and that the first complaint of the sons of Massachusetts was that they had not received beans enough. "Beans for breakfast, beans for lunch, beans for dinner—what t' tell!" growled the New Yorkers.

"And as for beans," shrieked a Massachusetts warrior, "they don't give you enough to fill a tablespoon."—From "The Rocking-Chair Period of the War," by RICHARD HARDING DAVIS, in the August (Fiction Number) *Scribner's*.

THE TREATMENT OF GONORRHEAL URETHRITIS BY MEANS OF PROTARGOL.

BY DR. J. BAROZZI, OF PARIS.

As nitrate of silver has been accorded so high a position in the treatment of genito-urinary disorders, I would call attention here to a new silver compound, protargol, which according to the result of some experiments has appeared to me to be of signal service.

As regards the composition of protargol which was prepared by Eichengruen in 1897, it is a firm and very stable combination of metallic silver with a proteid body. It appears in the form of a very fine powder of a light yellow color, readily soluble in water, the solution being remarkably permanent. As a matter of fact, it is not decomposed by alkalies, chlorides, or by sulphates, or dilute acids. It resists equally well the action of light and that of moderate heat. Although, according to Eichengruen, concentrated hydrochloric acid produces a precipitate in these solutions; this does not consist of silver but of pure protargol, which becomes redissolved on addition of water. Since the discovery of this new silver compound several observers, among which may be mentioned Bernario, Barlow, Goldenberg, have investigated its chemical and bactericidal properties. The results obtained demonstrate that protargol is an antiseptic of real value. Professor Neisser of Breslau was the first who suggested its use in the treatment of urethral gonorrhea, and has published his result in the "Centralblatt fuer Dermatologie."

The favor with which protargol has been received by specialists across the Rhine, and the very encouraging results which it has given in a number of cases of gonorrhea, and finally its complete harmlessness, merit the attention of the medical profession.

Professor Neisser, who is very enthusiastic as to the utility of this remedy, on the ground of his personal experience, states that it is superior to all the other anti-gonorrheal remedies hitherto known, and that it is an antiseptic which, aside from its high bactericidal properties, possesses a great advantage of never giving rise to any irritation.

To establish its real value, I shall report the results obtained from the method adopted by Professor Neisser as well as those from the method followed by M. Haidoutoff in the hospital Saint-Louis of Paris, in the service of M. Balzer.

According to Neisser, before commencing the injections, it is always necessary to determine the presence of gonococci in the urethral secretions. In cases of the acute form of this affliction, it is necessary to make a minute examination of the pus coming from the anterior urethra, but in chronic cases one should always take the precaution to search for the gonococcus in the discharges from the posterior urethra. When by means of microscopical examinations, several times repeated, the presence of the organism is positively revealed, the injections are initiated. These should be made three times daily. The fluid should be retained in the urethra for a period of time varying, according to the circumstances and individual conditions, from fifteen to thirty minutes.

At the end of several days the number of injections may be diminished, especially in cases where an amelioration of the local condition rapidly manifests itself, and in that event two or even one injection during the twenty-four hours will be sufficient. It is of great importance that the injections should never be discontinued until the disappearance of gonococci has been positively determined as a result of repeated microscopical examinations, for a too hasty discontinuance of the treatment may be followed by very disagreeable recurrences. Indeed, it will always be more prudent to keep up the injections for a period of 8 or 10 days after the discharge has completely ceased and the gonococci have disappeared.

The strength of protargol solutions will necessarily vary according to the period of treatment. At the start Neisser recommends aqueous solutions of 0.25 to 100 gm.; later he increases the strength to 0.5 gm., and finally to 1.0 gm. per 100. Neisser states that the protargol solution 1 to 400 is not more irritating than a nitrate of silver solution of 1 to 4000.

For investigations made at the hospital Saint Louis in the service M. Balzer, M. Haidoutoff employed a solution of protargol of the strength of 1 to 1000. He employed this treatment in 21 cases, 13 of which suffered from acute urethral gonorrhoea, 5 from the subacute form, and 3 from the chronic form. In all the cases he had recourse to abundant urethral vesical irrigation, repeated once daily for a number of days. It is of interest to describe the manner of performing the irrigations.

The patient, having emptied his bladder, is seated upon the edge of a chair, the body bent somewhat backward and firmly

pressed against the back of the chair. It goes without saying that during the whole course of the sitting the patient should abstain from all movement. Moreover, before commencing the irrigation it is essential to clean well the glans, meatus and prepuce with water and soap, and to wipe the parts with a small sponge soaked in a weak antiseptic solution. These preliminary precautions having been carried out, the physician introduces between the lips of the meatus a glass canula with a conical end (thoroughly disinfected and preserved in an antiseptic solution), to the other end of which is attached a rubber tube two meters long, the latter being attached to a glass receptacle having a capacity of several liters. This is placed at a sufficient height to favor the flow of the fluid contained therein.

For washing out the anterior urethra, it is important to hold the lips of the meatus well applied against the side of the canula, in order to prevent the reflux of the liquid before complete distension of the segment of the urethra which it is proposed to cleanse, but as soon as this distension has been obtained the flow should be interrupted and the canula withdrawn in such a manner as to permit the outflow of the fluid contained in the anterior urethra. This little manœuvre is repeated several times, until the interior of the canal has been well saturated with fluid.

For washing out of the posterior urethra, it is necessary to place the receptacle at a greater height with a view of obtaining a pressure capable of overcoming the resistance of the membranous portion. A height of 1.80 meter to two meters is always sufficient for that purpose; but before passing the fluid into the bladder it is essential to disinfect the glans and the anterior urethra carefully, in conformity with the dictations above described. In order that the injection may penetrate into the posterior urethra and into the bladder, one should insert the canula sufficiently far to produce a complete occlusion of the meatus. In the vast majority of the cases the passage of the fluid into the posterior urethra and into the bladder is effected without difficulty; sometimes a certain amount of resistance is encountered which, however, can always be overcome. It is indeed exceptional to meet with a case in which it is absolutely impossible for the fluid to pass.

After the fluid has reached the bladder in quantities varying, according to the case, from 150 to 300 gm., it is allowed to remain there for a few moments, after which the canula is with-

drawn in order to enable the patient to expel the fluid. The same procedure is repeated twice, three times, or four times, according to indications.

From what signs is it possible to determine whether the treatment has been efficacious, and that the patient has been cured?

The suppression of the discharge constitutes a symptom whose value is more apparent than real; but it is nevertheless certain that it has some significance, and that even if one has not the right to announce the cure of a patient who no longer passes any pus from the urethra, one can at least affirm that he is a good way on the road to recovery. The disappearance of the gonococci is an argument of much more weight, and it is possible, without fear of disappointment, to assume that in the vast majority of cases a subject whose canal is no longer occupied by this micrococcus is cured, provided that repeated microscopical examinations have been made, and that the products collected by scraping from various points of the urethra have been examined.

In the course of his experiments, M. Haidoutoff has completely determined these two essential conditions before regarding as positively cured the cases treated by irrigation with protargol. In reviewing the results which he has obtained by these means, it appears that among 13 subjects suffering from severe blennorrhagia, eight were completely cured, after a number of sittings, varying from 7 to 17; that among five cases of subacute urethritis, three were observed in which the discharge was arrested and the gonococci disappeared completely, and finally that in three cases of the chronic form two were completely successful.

On the ground of the results obtained by Professor Neisser and those reported by M. Haidoutoff, the following practical conclusions may be formulated in regard to protargol:

1. It is an innocuous anti-gonorrheal remedy, and possesses genuine antiseptic properties.
2. It has the same curative effect as nitrate of silver, but possesses the advantage of giving rise to a much less marked local reaction, of never producing the symptoms of irritation, at times so intense, for which nitrate of silver is occasionally responsible.

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EDITORIAL.

A CONSEQUENCE OF THE WAR.

The late political events which have directly concerned the United States have a more far-reaching importance, in a medical sense, than the daily press has made it appear. Quite an important event was the annexation of the Sandwich Islands. Perhaps more important has been the Hispano-American war, which resulted in the victorious supremacy of this country and the acquirement of Cuba, Porto Rico, the Ladrões, and the Phillipines. All these possessions are certainly rich and can be made the source of a large revenue, as well as open fields for the industries which are at present over-productive. The permanent establishment of the American government in these possessions will necessitate keeping up a large standing army, thus giving occupation to a large number of the army of the unemployed. But this pleasing side of the medal has its reverse, and it is to this that we would draw the attention of the medical profession more particularly, as it is especially interested in it.

Whilst the country is acquiring territory it is also acquiring the diseases endemic to all these various countries. The Sandwich Islands with their lepers, who count into the thousands, are alone a standing menace to civilization, if the theory of the contagiousness of the disease be true. Once this territory becomes American, communication will be more free and more extensive, and, as a result, the seeds of the disease be more easily disseminated. Cuba will be very apt to spread yellow fever by way of our southern ports, and other sub-tropical, endemic, virulent diseases be transported to our shores from the far East. It must not be forgotten that the doctrine of extension practically carried out also has its drawbacks.

This again will have one good effect. Prompt and early measures will have to be taken to repress the dissemination of disease, and it will then be absolutely necessary to establish a real National Board of Health with an efficient central bureau, which ought certainly be presided over by a cabinet officer, a Secretary of Health. This will afford an opportunity for hygienists to do practical work and of a nature to be of benefit at home and in the colonies. A hygienic bureau, composed of efficient men, can easily recognize the dangers which threaten this country, and give such rules and directions as will avert them. Furthermore, with military stationed abroad as well as at home, the enforcement of orders given can be carried out, even if it be necessary to do it at the point of the bayonet.

The good which can be done in the way of hygienic improvement cannot be overestimated, and unless prompt and active measures be taken the amount of damage which will follow can not be calculated. The whole question is one of more than ordinary importance, and to which too much timely attention cannot be paid. There is no doubt that great difficulties will be encountered and mistakes made which will need correction; but once given the proper impulse the ultimate results of administrative activity, guided by scientific sanitary advice and hygienic rules, will bear abundant and good fruit.

AN ATTEMPTED MONOPOLY.

One of the latest attempts to create a medical monopoly is that which has been tried by Behring, the alleged discoverer of diphtheria antitoxin. He wishes to monopolize the production and sale of the antitoxin upon the claim that he is the discoverer

thereof, and after five unsuccessful attempts he did obtain a U. S. patent. If our readers will take the trouble of reading the article on page 134 on the Development of Serum Therapy they will find upon what a flimsy pretense the patent-seeking gentleman bases his claim.

We would further call attention to the fact that it is not only he that has made it or is making it. Whilst he manufactures Behring's serum, Parke, Davis & Co. of Detroit make a serum equally as good, but do not infringe upon our German friend by calling it Behring's—they are satisfied to call it P. D. & Co.'s.

From a purely ethical and moral point of view, it is certainly wrong to attempt to monopolize a method or remedy which has been of such inestimable benefit to mankind. There is too much of the spirit of commercialism in this attempt. It certainly is unscientific and breathes more of the merchant and speculator than of the doctor. Moreover, it is positively inhumane, this attempt to traffic on the misfortune of others. We are sure that the physicians of this country will frown down upon any such attempt were it for no other reason than that it is so un-American.

Dr. David Clarendon Bryan, as our readers will note in this issue of the JOURNAL, is prepared to offer his services to the medical profession in the capacity of an expert diagnostician. His capabilities in this regard may be easily judged by the fact that he has been an interne in the principal hospitals of London, as well as assistant to some of the best metropolitan specialists. He also walked the leading hospitals of Paris, Berlin, and Vienna, so that he comes among us fully equipped and qualified for his work.

New York Post-Graduate Medical School.—The seventeenth Annual Announcement of the New York Post-Graduate Medical School and Hospital, University of the State of New York, for 1898-99, has just been issued. It shows that 523 practitioners of medicine have attended its courses during the year. They came from the various States of the Union and the Dominion of Canada. There were ten physicians from foreign countries, two of these being from India and one from Japan. Only ninety-six were from the State of New York.

MEDICAL PROGRESS.

MEDICINE.

Treatment of Inoperative Sarcoma by Coley's Fluid.—Dr. Mansell Moullin, in a paper read before the Harveian Society (*Brit. Med. Jour.*, Feb. 19, 1898), offers the following conclusions, some of which may require modification later:

1. It could not be denied that there was a considerable number of cases in which sarcomata that had been given up as hopeless, often after repeated operations, had absolutely and entirely disappeared after this method of treatment. There was no other treatment, except infection with the streptococcus of erysipelas itself, of which this could be said.

2. Some of these cases had remained free from recurrence for upwards of three years, the period which, in the case of the excision of the breast for scirrhus, was regarded by many operators as justifying the use of the term "cured."

3. Several of the cases in which sarcomata had disappeared after an attack of erysipelas had remained free for seven years and upwards.

4. The fact that there might be a very few cases recorded in which sarcomata had disappeared, either spontaneously or after such diseases as acute specific fevers, had nothing to do with these conclusions (the statement that sarcomata did occasionally disappear was repeated with great regularity, but well authenticated cases verified in the way in which Coley's had been verified were difficult to find).

5. These conclusions were not in any way invalidated by the fact that injections of the toxins were sometimes followed by the disappearance of other growths, such as lupus, keloid, syphilitic deposits, carcinomata, etc. It might make the disappearance of sarcomata more difficult to understand, but it in no way disproved it.

6. The proportion of cases of sarcomata that were cured by the injections of mixed toxins depended, among other things, upon the histological character of the growths. Spindle-celled sarcomata were by far the most successful. This suggested the

conclusion that the mixed toxins had a selective action, even if it was not specific.

7. The disappearance of sarcomata was not due to inflammation, but to an intensely rapid form of fatty degeneration, comparable only to that which affected the hepatic cells in acute yellow atrophy of the liver. Inflammation and sloughing, when they did occur, were septic complications.

8. Degeneration and absorption might occur whether the toxins were injected directly into the tumor or into some distant part of the body. In the former case the effect was more rapid and the constitutional symptoms severe.

9. The method was attended with considerable degree of danger. It should therefore be adopted in those cases where there was no other remedy. The chief risk seemed to be from collapse and pyæmia. There must always be danger of the latter if there was a suppurating or sloughing sore. It might be argued that patients whose lives were threatened by a malignant growth would never be cured by any remedy that did not involve some such degree of risk.

10. The cultures were of no use unless taken from a virulent case of erysipelas, or were made virulent by passing the streptococcus through rabbits.

11. The bacillus prodigiosus, in spite of the theoretical objections, had the effect of immensely increasing the reaction.

12. The effect was most striking in the case of rapidly growing sarcomata. Slowly growing ones seemed to have much more resistance. Probably this meant the masses of embryonic cells with little organization gave away to injurious influences more readily than those that were more closely knit together.

13. Patients often gained in weight and strength while under treatment.

14. Treatment should be continued until the growth had vanished, or until it had become so small that it could be removed.

15. If there was a recrudescence of the disease it did not follow that the toxin would be as efficacious the second time as the first. Whether this was the result of tolerance being established could not be said.

16. Recurrence in other parts of the body might take place after many years.

17. The severity of reaction was very variable. Probably this depended upon the rapidity with which the injection was absorbed, rather than upon any cumulative action it might possess.

Dangers of Blisters.—Dr. Huchard (*Bull. de l'Acad. de Med.*, No. 7, 1898) expresses the following opinion concerning blisters.

1. They often produce an open wound, which facilitates secondary infections or the absorption of cantharides.

2. Besides tending to cause inflammation of the kidneys and bladder, they have a general congestive action.

3. Even in those diseases where they are most frequently used, such as pneumonia and pleurisy, they should be discarded, because, though they increase pulmonary ventilation, they increase also pulmonary congestion.

4. Blisters tend to arrest excretion by the kidneys, so important in all infectious diseases, and this is especially harmful in those normally causing albuminuria. Instead of aiding the excretion of toxins, blisters are likely to produce a fresh intoxication.

5. The only real use of blisters is in their revulsive and analgesic action, but the effect is better attained by less dangerous means, such as mustard plasters or cold baths.

A Sign of Grave Facial Paralysis.—Drs. Bordier and Frénkel (*Le Scalpel*, June 19, 1898) have noted a new phenomenon in peripheral facial paralysis, which has considerable prognostic value. This is the rotation of the ocular globe from above downwards during the act of closing the eyelids. Bonnier says he has encountered this sign in all cases that he had observed. Frenkel and Bordier explain it as an actual nervous discharge: voluntary excitation having no action on the facial, discharges itself in another way. Dr. Bonnier thinks that it is a simple derangement in moticity. Campos thinks that it is a physiological phenomenon becoming more manifest by the fact of a more considerable nervous impulse, and that the phenomenon is more manifest according as the impulse is more intense, that is to say, as the paralysis is more marked.

THERAPEUTICS.

Treatment of Febrile Conditions in Children.—Excessive temperatures occurring in the acute infectious diseases of children, particularly in pneumonia, may often be successfully treated by the following formula:

R Lactophenini.....0.1
Sacch. Alb.....0.3

M. Ft. pulv. dent. tal. dos. No. X.

S. Give one powder every three hours to a child from two to five years.

For acute intestinal disease in children of from 6 to 12 years, marked by high temperature, the following may be used:

R Lactophenini.....0.15
Bismuth. Salicyl.....0.10

M. Ft. pulv. dent. tal. dos. No. VI.

S. Give one powder in wafer or capsule every three hours.

—*Archives of Pediatrics*, Feb. 1898, p. 145.

Ferratin in Anemia, with Report of a Case.—Dr. A. A. Saunders writes as follows: With the yearly increase of the world's knowledge there comes to the average practitioner, who has not the opportunity to make himself thoroughly acquainted with what may be called the refinement of diagnosis, a time of bewilderment, when he feels that his usual diagnostic skill must be at fault. What he formerly would without question have termed anemia, and confidently treated with Bland's pills or tinct. ferri chloridi, he feels now to be a more complicated problem.

The recognition of anemia should carry with it a knowledge of its causative factors, whether due to an impoverishment of the blood from a defective supply or excessive waste, and the appreciation of the effect the condition may have upon the vital processes; but for the most careful work more than this is needed. There is a disturbed relation of the organic constituents, with increase of some and diminution of others; and to be thoroughly up to date in recording one's cases and experience in this class of cases it is necessary not only to count the red corpuscles, but estimate the percentage of hemoglobin. Such records, if accurate, are invaluable aids in estimating the gain or loss in a particular case, although there is no necessity of so doing in many of the patients who come under our care.

The possession of a little common sense and an intelligent appreciation of the symptoms presented will in most cases satisfy us of the progress of our patient without a percentage estimate of the blood constituents.

A case has recently come under my care which illustrates the value of this extra care. In the spring of 1897 I was consulted by J. M., a young girl of sixteen, on account of double vision. She had never had trouble with the eyes until ten days previous, when she had a sudden blindness and an immediate sensation as if the eyes were crossed. I noted nothing abnormal about the eyes, and advised her to see an oculist, which she did on the following day, returning to me with a note from the specialist that the diplopia was due to a paralysis of the abducens, and possibly caused by her anemic condition. He advised that the eye be placed at rest with atropia, and attention be given to the general health for some weeks, and later the use of electricity, if the trouble was not relieved.

Upon questioning the patient, I found that she had suffered from malaria, with frequent attacks of chills, but aside from that had never considered her health poor. Closer examination of the patient's condition revealed what I did not notice at first visit, when my attention was more particularly drawn to the eyes. There was marked pallor; the mucous surfaces were pale; with cold extremities, and poor peripheral circulation. She admitted that she was frequently short of breath upon slight exertion, and had occasional attacks of nose bleed. The menstrual functions were imperfectly performed, the catamenia being very scant and irregular in appearance.

Physical examination of the chest revealed a soft, blowing murmur at base of heart, but no disturbance of the respiratory organs. The urine was abundant (estimated at four pints), of low specific gravity, and without albumin or casts. No headache or other cerebral symptoms.

She was placed upon a pill of iron, quinine and strychnine, with full directions for her daily life. A week's trial of this treatment was productive of no good result; the eye symptoms were unchanged, and there was rather an increase in the pallor of the face. Languor was also complained of, with a strong disinclination for the daily exercise advised.

The next few weeks were equally unproductive. There was

frequent epistaxis, amenorrhea, increasing weakness, and an aggravation of the ocular trouble, it being impossible for her to fuse the images or suppress the second. During this time she also suffered from an attack of supposed malaria. Successive trials of the various preparations of iron and cod-liver oil were apparently of little avail.

Upon the supposition that malarial infection existed, large doses of quinine were exhibited, and several doses of Warburg's tincture. Upon her suggestion, she consulted an eminent physician in Providence, who advised that an examination of the blood be made for the detection of the malarial parasite. The result was negative, so far as a specific micro-organism was concerned, but a blood count revealed less than 3,000,000 per c.mm., and a corresponding diminution in the percentage of hemoglobin. There was noted at this time slight facial paralysis, and a suspicious tooth was extracted, with the evacuation of considerable pus.

The iron was continued for several weeks longer, when a second count was made, revealing a slight loss of corpuscular elements.

The iron caused some disturbance of the digestive function, and the stools evidenced that it was imperfectly assimilated. Acting upon the suggestion of my consultant, the patient was placed upon ferratin in eight-grain doses. According to the researches of Marfori,* this product is ready for assimilation, and entails no effort of digestion. The blood count made two weeks later showed an increase of over a million red corpuscles per c.mm., and the gain was steady from that time on.

The diplopia, however, remained constant for some months, but finally yielded to galvanism; and a recent examination shows but a slight malposition, which is not perceived by the patient.

The facial paralysis was probably not connected with the other symptoms, but due to the irritation of the tooth.

The point which I wish to make is the examination of the blood as a means of estimating the value of any preparation of iron in a given case, and, from the knowledge thus gained, the error of continuing for long periods a treatment which is doing no good. The acceptability of the ferratin was shown from the start, not only by the subjective symptoms, but by the rapid improvement of the patient.—*Atlantic Medical Weekly*.

*Am. Text-Book of Physiology, page 972.

Action of Eudoxine.—In the *Wiener Medicinische Presse* (No. 45, 1897) Dr. Schön-Ladniewski offers the following examples as an illustration of the action of eudoxine:

Enteritis Follicularis.—Josephine B., aged two years, often subject to diarrhea, has been ill for the last four days. Within twenty-four hours twenty and more foul-smelling evacuations have occurred, which were mixed with mucus and blood. As a result of the violent tenesmus, the sphincter is relaxed, accompanied by prolapsus ani. The child is much emaciated, restless, apathetic; temperature, 39.2° C. (102.5° F.). The remedies prescribed by other physicians—such as bismuth salicylate, colombo, silver nitrate—were ineffectual. Rigid diet was ordered along with eudoxine, 0.2 grms. (3 grs.) every two hours. Morning and evening an enema with liquor buron, 100:1000 water. Even on the following day the stools were reduced in number to eight, on the third day to four, and from that time the general condition of the child showed a steady daily improvement.

Dysentery.—Jacob M., aged five years, was attacked three days ago after eating a large amount of cherries. After premonitory convulsions, violent colic and diarrhea supervened. When I saw the boy there were slight meteorism and painfulness of the abdomen; the evacuations, which consisted wholly of mucus and blood, occurred almost every ten minutes. Temperature, 38.8° C. (101.8° F.) Pulse, 130. The boy was given castor oil, followed by eudoxine in 0.4 gm. (6 grs.) doses every three hours for five days. During this period the number of stools was greatly diminished; they became firm and feculent. The temperature returned to normal; pulse, 110. After a further six days the boy had completely recovered.

The author further remarks that he can heartily endorse the statement of Rosenheim in regard to the favorable action of eudoxine in

Subacute and Chronic Intestinal Catarrh.—In several children, who had been unsuccessfully treated for weeks and months with various remedies, he observed a decided improvement after eudoxine had been taken for five or six days. The mucus disappeared from the stools, and they became more consistent; the subjective troublesome symptoms subsided; in short, the patients were well on the road to recovery.

He also had an opportunity to employ eudoxine in two girls,

aged eleven and fourteen years respectively, who were suffering from advanced

Pulmonary Phthisis, and in whom profuse diarrhea had developed. In these cases, of course, eudoxine could not heal the pathological process; nevertheless the symptomatic action was most favorable, for as long as eudoxine was administered to the patients the diarrhea ceased, and recurred when it was suspended.

As eudoxine is absolutely harmless, it may be administered for an unlimited period without any bad effects.

PHYSIOLOGICAL AND PATHOLOGICAL NOTES.

The Microbe of Sauerkraut.—The discover and sponsor of this micro-organism (*Revue Médicale*) examined some cabbages that had been heaped in a cask for only twenty-four hours, and found therein a bacillus, motile, ciliated, exhaling much gas, and giving rise to the characteristic odor of sauerkraut. He named it the *Bacterium brassicæ acidæ*. We may add that, in view of the "envy, hatred, malice and all uncharitableness" often observed in medical controversy, and particularly as to claims of priority of invention, this illustrious scientist would confer a public benefit by directing his attention to the microbe of "sour grapes."

Ameboid Bodies in the Blood of Vaccinated Subjects and in Cases of Variola.—Surgeon Walter Reed, U. S. A. (*Journal of Experimental Medicine*), confirms the observation that small, granular ameboid bodies are present in the blood of vaccinated children and calves, and in that from cases of variola during the stage of fever. Nuclei in any of these bodies could not be positively made out. Similar granular ameboid bodies, having a diameter about one-third that of a red blood-cell, were found also in the blood of monkeys during the active stage of vaccination, disappearing with the decline of the local inflammation. A body of like appearance, granulation and size was occasionally found in the normal blood of monkeys and children. Pale ameboid bodies, containing a few dark, pigment-like granules, were found in the blood from cases of variola and in that of a variolated monkey. Bodies of like appearance were occasionally found in the blood of vaccinated children and monkeys.
—*Medical Record*.

DISEASES OF WOMEN AND CHILDREN.

A New Way of Performing Gastro-Enterostomy.—Dr. F. T. Paul (*British Medical Journal*, June 4, 1898) proposes the following plan:

The stomach and bowels having been exposed, a longitudinal incision is made in the former—about two inches—through the peritoneal and muscular coats. These are reflected with a small curved, blunt dissector over an oval area, having a diameter about one inch in the center. The exposed submucosa is then rubbed about half a dozen times with a stick of zinc chloride, being well dried between each application, when it assumes a gray, dead look. The bowel is now wrapped in a piece of moist absorbent wool and laid on one side, while the stomach is dealt with in an almost similar manner. In preparing the stomach for the anastomosis, instead of making a linear incision, an oval patch of musculo-peritoneal coat is excised; the muscular coat being so much thicker in this organ, it is rather in the way if only reflected, and what is of more importance is that the loss of substance helps to prevent subsequent contraction of the opening. Both the wounds having been duly cauterized, they are brought together, and a continued suture of the finest green gut is run around the edges—not, of course, penetrating the mucous membrane, but picking up as far as possible the tough submucous coat. Finally, a few Lembert or Halstead sutures are generally desirable, especially in anterior gastro-enterostomy. The mucous and submucous coats slough and entirely disappear from twenty-four to forty-eight hours after operation.

The features of this operation, which is hoped may be reckoned as advantages, are:

1. The effect is one of pure traumatism. The viscera not being opened, all risk from such sources is avoided.
2. No foreign body is used.
3. The time occupied is less than a suture operation, though more than for Murphy's.
4. The anastomosis resulting from loss of tissue should be more durable than in the majority of methods.

Hypnosis in Pregnancy and Labor.—Dr. Louis Lichtschein (*New York County Medical Association*, June 20, 1898) said there were only three normal conditions in pregnancy in which

suggestive therapeutics was useful, viz.: (1) In pernicious vomiting; (2) anorexia; and (3) abnormal cravings for particular foods, and especially for unpalatable substances not usually regarded as food. That the obstinate vomiting of pregnancy was sometimes amenable to psychical influences was shown by its amelioration or cessation by the mere change of surroundings. He had not had the opportunity of using hypnosis in complicating cases of labor, but when it could be used successfully it possessed a decided advantage over chloroform. Some pregnant women could not be hypnotized at all, others could be made to sleep only superficially, while others again slept deeply, but awoke as soon as the pain became severe. Still others slept very deeply and did not awaken during the pains, and only awakened afterwards and had no recollection of what had taken place. There was still another class in which, although the patient was awake, she felt no pain as the labor progressed. Of forty-six cases of labor in which he had employed hypnosis, nine were failures, in eleven the patient slept superficially, fifteen slept deeply, ten had a very deep sleep with perfect amnesia, and one remained awake, but felt no pain at all.

Pregnancy After Hysteropexy.—Gibert (*L'Obstétrique*) is of the opinion that ventral fixation of the uterus entails no trouble should pregnancy occur, provided that the anterior and upper part of that organ be fixed to the abdominal walls. The common error of operators is to fix the top of the fundus at the level of the insertion of the tubes, low down and close over the bladder. The cervix is thus brought upwards, lying unnaturally high and very far back. When pregnancy occurs it is only the posterior wall of the uterus that can develop. In one case, where the fundus was thus fixed the fetal head lay in a natural attitude, though the height of the cervix was awkward for the obstetrician. The shoulders, however, lay in a big pouch to the left, separated from the head by a kind of spur. This pouch was the left half of the back of the uterus, which had developed very irregularly. Turning was effected with difficulty; as the shoulders were delivered the uterus straightened itself, and it was found afterwards that it had broken away from its adhesions. The child was saved. When the front of the uterus is well opposed to the parietes the entire organ can develop during gestation, the cervix is not inconveniently placed at labor, and

the anterior adhesion remains intact after delivery. Gibert describes a case in which this satisfactory result ensued. Involution was rapid, whilst in the first case the detached uterus apparently maintained its deformed condition. — *British Medical Journal*.

Forty-Six Cases of Placenta Previa.—Platzer (*Centralbl. für Gynækol.*, Aug. 14, 1897) gives a clinical report of forty-six cases of placenta previa as follows:

1. After expectant treatment, that is, the use of tampons or artificial rupture of the membranes, in twenty-three cases the mortality of the mother was 0; that of the child 39 per cent. Actually this mortality was only 18 per cent., as two of the births were premature and in four cases the child was already macerated.

2. After podalic version and spontaneous expulsion, in eight cases the mortality of the mother was 0; that of the child, excluding two macerated fetuses, 83 per cent.

3. After version and immediate extraction, in thirteen cases the mortality of the mother was 23 per cent.; that of the child, 46 per cent.

These statistics show that extraction is unfavorable for the mother, and ought to be rejected, even though it is somewhat more favorable for the child.

SURGERY.

The Phagedenic Ulcers of Hot Countries.—Dr. J. Breult (*Annales de dermatologie et de syphiligraphie*) recounts that in the Madagascar expedition the Arabs and Kabyls suffered with uncommon frequency with the phagedenic tropical sore, especially on the lower limbs, while the Somalis and Sudanese, as well as the regular troops, who were better equipped, were almost entirely free from it. It ran a particularly unfavorable course when complicated with moist gangrene and hospital gangrene. By energetic treatment, especially operative procedures and the employment of antiseptic dressings, the author obtained comparatively good results. In view of the demonstrated predisposition of the Arabs and Kabyls, their indolence and filth, he holds it to be quite possible that the tropical sore is smuggled into their homes by them when they are not perfectly cured, and serves as the starting-point of epidemics. — *Daily Lancet*.

Fracture of the Base of the Skull.—Cases of fracture of the cranium with abundant issue of cerebral matter with recovery, are not very common. M. Berchond communicated an accident of the kind to the Société de Médecine. A boy, aged 7, fell down from the second story of a house. He was picked up insensible and carried to the hospital. On examination it was found that the right parietal was fractured, and the fracture extended to the external orbital apophysis, through which the cerebral matter flowed out in considerable quantities. The patient was somewhat delirious, while the left arm was paralyzed. Two days after the dressing consciousness returned, and the general symptoms improved, and remained so until perfect recovery; memory and intellect were intact.—*Press and Circular.*

The Question of Operative Interference in Recent Simple Fractures of the Patella.—Dr. Charles A. Powers, at the meeting of the American Surgical Association, which met in New Orleans, April 19, 20, 21, in a paper with the above title, enumerated the conditions tending to cause imperfect union and the obstacles to union as follows:

1. Separation of the fragments are due to (a) retraction of the upper fragment from contraction of the quadriceps femoris and a slight drawing down of the lower fragment through a shortening of the ligamentum patellæ; (b) effused blood.
2. Tilting of the fragments (this may be present to a marked degree and unrecognizable without operation).
3. Rupture of the tendinous expansion of the vasti and of the lateral portions of the capsule of the joint.
4. Prolapse of the pre-patellar tissues into the breach.
5. Atrophy of the quadriceps femoris due to (a) disuse; (b) arthritis; (c) marked contusion of the muscle; (d) blood extravasated from the joint through a rent in the upper part of the capsule.
6. Arthritis of the knee-joint, this possibly resulting in—
7. Adhesion of the patella. Further, though of little value, may be added:
8. Natural poverty of the blood supplied to the bone (rendered negative by the fact that the vertical fractures heal satisfactorily); and

9. Exceptional tendency to osteitis, seen in fat people, in the aged, and in certain conditions of the blood.—*New Orleans Medical and Surgical Journal*, May, 1898.

Esophagotomy Practiced on a Child in Order to Extract a Coin Which Had Been Located by the Radiograph.—Dr. M. L. Monnier (*Gazette Médicale*, de Liege, August 26th, 1897) reports a case of a child of five years of age who swallowed a coin about the size of a franc. Catheterization under chloroform caused the cessation of the intense dysphasia that followed after, but did not enable them to locate the coin. The first radiograph showed the coin placed vertically, and arrested at the point of junction of the third and fourth vertebra. The second radiograph showed the coin to be on the anterior wall. Dr. Monnier taught the child to tolerate a rubber sound introduced by way of the nose to the upper third of the esophagus. At the end of a week he performed external esophagotomy, which enabled him to reach the piece of money with the left index finger introduced into the esophagus by an opening of from eighteen to twenty millimeters. With the aid of his nail he disengaged the coin, and with ordinary nasal forceps drew it out.

The results of the operation are very satisfactory. The nasal sound was removed on the fifth day, and by the fourteenth day the esophageal wound was healed.

The author called attention to the importance of the X-rays in this case, since their use has made a successful operation possible.

DERMATOLOGY AND SYPHILOLOGY.

Practical Use of the Endoscope.—Dr. Herman G. Klotz (*Journal of Cutaneous and Genito-Urinary Diseases*, July, 1898) says, in regard to the treatment:

“The endoscope is of practical value in three different ways: First, the determination of the nature and of the location of pathological condition supplies, in the most exact manner, information, on the strength of which we may select those therapeutic measures which promise the best and quickest results, and apply them to the proper spot. Second, by freely exposing the diseased portion to the eye and bringing it within easy reach

of our hand, endoscopy naturally renders possible and invites the application of suitable drugs with great exactness to those parts, and to them only, thereby allowing of the use of much stronger and more effective remedies which would injure any but the affected portion. Third, we are enabled by the endoscope to control the effects of any treatment, both applied through the endoscope or otherwise, so that we soon can judge whether the adopted treatment is successful or not."

GENTO-URINARY DISEASES.

Treatment of Gonorrhea in Women.—Since the time that Noegerrath published his views regarding the influence of gonorrhea in the causation of diseases of the female genitals, his observations have been confirmed by a constantly increasing number of gynecologists. As at the present time gonorrhea is regarded as one of the chief causes of this class of disorders, it is of interest to refer briefly here to a new anti-gonorrheal remedy, which is considered by Neisser as a real therapeutic advance. The remedy referred to is protargol, a proteid silver compound, which has the striking advantage of not being decomposed by secretions, of having high penetrating power, and of destroying gonococci, not only in the superficial, but deeper layer of the mucous membrane. Although protargol has been chiefly employed in gonorrhea of the male, Dr. Fuerst has lately given it a thorough trial in cases of this disease occurring in women, and summarizes his observations as follows (*Therapeut. Monatsheft*):

1. Protargol is of a decided value in the treatment of gonorrhea of the uro-genital region, and is frequently superior to other remedies hitherto in use.
2. When employed in a systematic manner it destroys the specific organisms in the shortest possible time without causing irritation.
3. In cases of cervical gonorrhea applications of protargol must be made in the uterine cavity.
4. In order to effect a radical cure the parts must be kept perfectly at rest, and under proper hygienic conditions a cure may then be effected within three weeks. By an early resort to a protargol treatment the sequelæ of gonorrhea in women, such as salpingitis, can often be prevented.

DISEASES OF THE NOSE, THROAT AND EARS.

Blennostasine in Hay Fever.—The drying effect of blennostasine is most remarkable, and renders it of great value in the treatment of hay fever. Many remedies may benefit this affection, but the most uniform and decided results are obtained from the use of blennostasine. Its influence on the vasso motor system is in many cases remarkable. It produces a dryness of the naso-pharyngeal membrane almost equal to the effect of belladonna, and has the additional advantage of being non-toxic. When possible, treatment should be commenced ten days before the usual date of attack, with five-grain doses of blennostasine three times a day. On the day preceding the usual date of attack, twenty grains should be administered, and the dose increased ten grains daily until the symptoms are controlled. If the attack does not appear or is controlled, the dose should be gradually diminished. If the patient is not seen until the attack has begun, full doses (five grains) of blennostasine should be given and increased as required.

Diphtheria.—Dr. James J. Renshaw (*The Liverpool Medico-Chirurgical Journal*, January, 1898,) says:

As to the results of the antitoxin treatment, it has been found that in the hospitals of the Metropolitan Asylum Board, the percentage of mortality, as a whole, has fallen from 29.6 (the lowest previously reported to 20.8. Of cases that came under treatment the first day, the death rate has fallen to the remarkable figures of 4.7 per cent., as compared with 22.5 per cent. in 1898. For the five years, 1890-1894, the mortality amongst the post-scarletinal cases was slightly over 50 per cent., while now that most of these cases are treated by antitoxin, the mortality has fallen to 5 per cent., although the mortality amongst the cases treated on the fourth or fifth day and later is over 40 per cent. Amongst those treated on the first day it is 2.8 per cent. Taking those treated with antitoxin only the mortality is 5.7 on the total, and 2.3 on the first day; indeed, out of 250 cases treated at once only 6 died.

Intubation is used, but I think only mechanical, as the disease often spreads in spite of it.

TERATOLOGY.

An Adult Male With Four Nipples.—Dr. Thomas J. Yarrow reports to the *New York Medical Journal*: Jacob R., aged thirty-seven years, entered the Medical Dispensary of the Hospital of the Protestant Episcopal Church (service of Dr. Ketcham) suffering from chronic bronchitis. On physical examination it was noticed that he had four nipples, two in the normal position, and in addition one on the left side at the upper border of the sixth rib, about a quarter of an inch within the nipple line; another on the right side in about the same position as the latter. The lower nipple on the right side was not as well developed as the others. The patient had no knowledge of any member of his family having a like peculiarity. The rarity of such cases seems to warrant the reporting of this one.

PROCTOLOGY.

Primary Tuberculosis of the Rectum.—Straus publishes an interesting article on this subject (*Matthews' Quarterly Med. Jour.*) in which he reaches the following conclusions:

Primary tuberculosis of the rectum is not so infrequent as some of the leading authorities have taught.

It is a surgical disease as much as is appendicitis.

It is not and cannot be diagnosed by the clinical symptoms as given by the various writers on diseases of the rectum.

The only scientific and correct way of making a diagnosis is by the use of a microscope.

By thorough curettement or excision, or both together, with cautery, it is not only cured, but remains cured much more often than the teaching of the authorities would have us believe.

Some of the apparently hopeless cases are cured by repeated operations.

All suspicious cases should be submitted for microscopical examination.

Local treatment is not equal to curing these cases; permanent results are to be had by a radical destruction of diseased tissue or the habitat of the tubercle bacilli.

These cases are and have been cured, and that sufficient time has elapsed for us to conclude that they will remain cured.

Early and repeated operations, if need be, are imperative, if these cases are to be permanently cured.—*Standard*.

BOOK REVIEWS.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology, and Dermatology, and Specially Prepared Articles on Treatment and Drugs. By Professors and Lecturers in the Leading Medical Colleges of the United States, Germany, Austria, France, Great Britain, and Canada. Edited by JUDSON DALAND, M.D. (Univ. of Penna.), Philadelphia; J. MITCHELL BRUCE, M.D., F.R.C.P., London, England; and DAVID W. FINLAY, M.D., F.R.C.P., Aberdeen, Scotland. Vol. II. Eighth Series. July, 1898. 8vo., pp. 366. [Philadelphia: J. B. Lippincott Co. 1898.]

The volume before us is an unusually good one. The lectures are such as to inspire the greatest interest, which is but natural in view of the fact that the lecturers themselves are much above the average. Under the general head of Treatment, we notice some particularly excellent articles: such as the Treatment of Tuberculosis, by Prof. Grancher; The Treatment of Bronchial Infection by Emetics, by Prof. Albert Robin; and The Treatment of Sclerotic Catarrh of the Middle Ear, by Dr. Seth Scott Bishop. An excellent lecture is that of Prof. C. A. Ewald on Some Forms of Gastralgia. Mr. James Comtlic contributes a very good lecture on Spine, and Dr. A. D. Benedict gives some very good directions on the Physical Examination of the Liver.

Toxic Polyneuritis is a lecture which needs no commendation when it is known to be one delivered by Prof. R. Von Jakach. The surgical contributions of this volume are much above the average. Dr. William L. Rodman has a lecture on Trephining for Traumatic Epilepsy, which is full of suggestion and eminently practical in character. Mr. T. Pickering Pick, in his most interesting lecture on Syphilitic Stricture of the Rectum, would lead us to suppose that he spoke of the pseudo-syphilitic form of the disorder.

The departments of Gynecology and Obstetrics, Ophthalmology and Laryngology are well represented. In Dermatology there is but one, on Baldness, its Varieties, Causes, and Treatment, by Dr. Jay F. Schamberg, which is good and well illustrated. And we desire to state here that the volume has a large number of good illustrations and excellent plates, which add to its usefulness as well as attractiveness. The International Clinics continues to improve in the character of the contributions which it furnishes, and shows no signs whatever of any falling-off from the high standard it first assumed.

A Manual of Modern Surgery, General and Operative. By JOHN CHALMERS DA COSTA, M.D. 8vo., pp. 911. With 356 Illustrations. [Philadelphia: W. B. Saunders. 1898. St. Louis: Louis S. Matthews, 714 Pine St. Price, cloth, \$4.00; half-Morocco, \$6.00, net.

Our readers may remember that the first edition of Da Costa's work on surgery appeared some years ago. The present edition can hardly be denominated a second one. It is really an entirely new work, in which numerous subjects not mentioned in the former are dwelt upon and the other portions thoroughly worked over, not to mention the addition of a large number of most excellent engravings. It is, in fact, more modernized and brought up to the times of the latest surgical procedures of proven worth, finding that recognition which their importance demands.

Among the operations described more particularly are resection of the gasserian ganglion, Schade's operation for thermoplasty, Bodine's method of colostomy, Edmund Owen's operation for hare-lip, Senn's method of resection of the shoulder-joint, etc. The description of the use of the Murphy button will be appreciated by all who have not had experience with it. We would have liked to see more on the subject of plastic surgery from the fact that otherwise good operators do not seem to be familiar with the various devices possible in this regard.

On the whole, we can commend this work to the serious consideration of surgeons, as it embodies the principles of surgical pathology and the principal points in connection with the technique which is followed to-day and has been adopted by the best representatives of surgery. The book is certainly a good one.

A Manual of General Pathology, for Students and Practitioners By WALTER SYDNEY LAZARUS-BARLOW, B.A., B.C., M.D., M.R.C.P. 8vo., pp. 795. [Philadelphia: P. Blakiston, Son & Co. 1898. Price, \$5.00, net.

Some one has said that there are too many works on pathology written; but this certainly cannot apply to good ones, and, to our mind, the one before us must certainly be included in this class. It has the quality which all books written by good British authors possess—that of being thorough. This is the prevailing characteristic of continental writers of repute as well, and it is being more and more observable in this country.

The subject which is treated of in this volume is general pathology in contra-distinction to surgical pathology. The author has made it his object rather to give a connected whole in reference to morbid processes than a collection of isolated facts. In justice to him it must be said that he has admirably succeeded in his purpose. But little space is devoted to vegetable micro-organisms, with especial reference to the bacteria;

but the pathology of the circulation of the blood and of inflammation are considered at length, as they certainly should be in a work of this character.

The pathology of infection, of heat regulation, and of shock and collapse are deserving of more than passing attention on the part of the reader. The pathology of nutrition is by no means the least important subject considered. The pathology of various morbid conditions which are characterized by abnormalities of secretions and excretions is a most valuable chapter, as is that on the pathology of respiration. The book terminates with a full index of authors and subjects.

It is one of the most interesting books we have had the pleasure of reading in a long time, and one reading invites a re-reading and interested study.

Atlas of Syphilis and the Venereal Diseases, including a Brief Treatise on the Pathology and Treatment. By PROF. DR. FRANZ MEACEK. Authorized Translation from the German. Edited by L. BOLTON BANGS, M.D. Small 8vo., pp. 122. With 71 Colored Plates. [Philadelphia: W. B. Saunders. 1898. St. Louis: Louis S. Matthews, 714 Pine Street. Price, \$3.50, net.

The words of commendation which we have uttered in regard to previous numbers of this series are but accentuated when we examine the present one. The only criticism, if such it may be called, which we can offer is that there are not more plates. They are all so life-like, so true to nature, that one has here within the compass of a small volume a most extensive clinic with all the valuable lessons it carries with it, easily accessible at any time, and a valuable guide at all times.

The author has designed the book for the use of students and practitioners more particularly, and not for students, and has very wisely chosen those examples of syphilis and venereal diseases which occur most frequently. His opportunities have been large and he has utilized them to the greatest advantage, as a glance at this wonderful hand-atlas will easily demonstrate. The appearances of the diseases, as they appear in the male and female, are given with a fidelity truly marvelous. Mr. Schmitson, the artist, is certainly to be congratulated upon his very able water-color drawings from which the plates were made.

In fact, the whole work is one calculated to reflect credit upon all those connected with it, more especially the American publisher, Mr. W. B. Saunders. The text, whilst short, is practical and to the point, and will amply serve all the purposes of the physician, the editor having adapted the treatment to the methods which are better known in this country.

Atlas and Epitome of Operative Surgery. By DR. OTTO ZUCKERKANDL. Authorized Translation from the German. Edited by J. CHALMERS DA COSTA, M.D. Small 8vo., pp. 395. With 24 Colored Plates and 217 Illustrations in the Text. [Philadelphia: W. B. Saunders. 1898. St. Louis: Louis S. Matthews, 714 Pine St. Price, \$3.00 net.

The author of the book before us certainly needs no introduction. His reputation was made long ago, and he has sustained it in a remarkable manner. In the work before us is given the anatomico-surgical technique so essential to acquire upon the cadaver before operations on the living subject can be undertaken. Having this subject in view, the author most naturally devotes some considerable space to the text. The illustrations, which are quite numerous, elucidate it most completely, so that the student should experience no difficulty whatever in performing operations properly, and even elegantly.

Anatomy is strictly adhered to, and the plates, as well as the illustrations, afford delineations which are not often seen in even the best works on surgery. The care and attention which has been devoted to the proper illustration of the work is manifest in every delineation, this being accentuated by the manifest carefulness in the preparation of the reading matter.

The editor has added some notes which have only added value to the work, and perhaps helped the reader to more thoroughly appreciate the intent of the author. We heartily commend this book to students in medicine as well as to their teachers of surgery.

Diseases of the Nervous System. A Handbook for Students and Practitioners. By CHARLES E. BEEVOR, M.D., Lond., F.R.C.P. 12mo., pp. 432. With Illustrations. [Philadelphia: P. Blakiston, Son & Co. 1898. Price, \$2.50 net.

This is not intended to be a treatise, but it is a most excellent guide and reliable preliminary educator for the purpose of introducing the student to the larger and more compendious works on neurology. The author insists upon a proper method of examination to determine the condition of a patient, and very reasonably insists that the anatomical or regional method is much inferior to the physiological, where each system, such as the motor, sensory, etc., is taken separately and examined. We are fully in accord with him on this point.

The author has been personally associated with the best neurologists of Great Britain, and has done much work in conjunction with Mr. Victor Hoosley in his investigations upon brain localizations. In view of these facts, he naturally could not be expected to write any but a superior work on the subject of nervous diseases, and this is the very thing which he has done. His

experience in London hospitals has been large, and he is still adding to it, and, very naturally, he has contributed a portion of it to the medical-reading public. We hope to see him write an extended work, which we are sure will be most valuable if we are to judge from the handbook before us.

Inflammation of the Bladder and Urinary Fever. By C. MANSEL MOULLIN, M.D., Oxon., F.R.C.S. 8vo., pp. 156. [Philadelphia: P. Blakiston, Son & Co. 1898. Price, \$1.50 net.

This is not a long work, but it is a carefully considered monograph, pregnant with thought founded upon study and observation. The author's contention, and he supports it well, is that inflammation of the bladder is always due to micro-organisms, and that urinary fever is simply a septic infection. He very correctly attributes the one or the other to the use of instruments which are not surgically clean. As he very correctly states, aseptic methods have not come into general use yet, so far as the bladder is concerned. Those principles whose disregard would be considered criminal in operative surgery, do not seem to be in existence when it comes to introducing a sound or catheter into the bladder.

It is for this reason that this little book is particularly needed by physicians who are not genito-urinary specialists, and it is to these that we would particularly recommend it. Specialists, we know, will avail themselves of the first opportunity of obtaining it, as it cannot fail to interest them and place them in possession of the views of one of the foremost surgeons of England.

Lectures on Tumors. By JOHN B. HAMILTON, M.D., LL.D. 8vo., pp. 143. Third Edition. Twenty-one Illustrations. [Philadelphia: P. Blakiston, Son & Co. 1898. Price, \$1.25 net.

This is a most excellent little hand-book, and a vast improvement upon the first edition. In fact, it is an entirely new work. The nomenclature of the Royal College of Physicians has been adopted, as it was in this country by the American Medical Association. Yet, as the author pertinently observes, it can be regarded as only temporary. As a natural consequence of the adoption of this nomenclature, the tumors due to infective organisms (the granulomata) have been omitted. That there remains enough to consider needs no demonstration. Of course, cysts are taken into consideration. Malignant tumors are comprised under comprehensive terms of sarcoma and carcinoma, each having its subdivisions. This is certainly simplifying the subject, and none is in greater need of this than that of tumors. The work is just the sort of a remembrancer a student needs, and we can safely predict the early appearance of a fourth edition.

Hand-Book of Materia Medica for Trained Nurses, Including Sections on Therapeutics and Toxicology and a Glossary of Terms, with Dose and Use of Each Drug. By JOHN E. GROFF, Ph.G. 12mo., pp. 235. [Philadelphia: P. Blakiston, Son & Co. 1898. Price, \$1.25 net.

This is a most useful little book for the trained nurse, and will prove a great aid to teachers in their work of instruction. The book is conveniently divided into chapters, at the end of each one of which are questions whose correct answers require thought and reference to the matter in the chapter. The author has arranged his material in an excellent manner, and we have no doubt that the book will immediately spring into popularity, as it certainly deserves.

The Determination of Sex. By DR. LEOPOLD SCHENK. 12mo., pp. 222. Authorized Translation. [Akron, O.: The Werner Co. 1898.

Of course, everybody knows what Schenk's theory is, and yet very few know the philosophy of it, and this work is a complete exposition of the principles upon which the author founded his most celebrated method of producing sex at will. Of course, it is not yet a fixed fact, but the results he has obtained in some notable cases would seem to indicate that his ideas are more nearly correct than any which have been advanced on the subject. Every physician should read the book.

The Office Treatment of Hemorrhoids, Fistula, Etc.. Without Operation. By CHARLES B. KELSEY, A.M., M.D., 12mo., pp. 68. [New York: E. R. Pelton, 19 East 16th St. 1898. Price, 75 cents net.

This little book contains three lectures delivered by the author, but one of which has been previously published. He certainly gives good advice of a practical nature, and he is especially forcible in speaking of the abuse of the operation of colostomy, or the formation of an artificial anus. He suggests as a substitute the extirpation of the rectum, and it certainly is a preferable procedure. The lectures are worthy of careful attention.

Manual of Physical Diagnosis, for the Use of Students and Physicians. By JAMES TYSON, M.D. 12mo., pp. 278. Third Edition. Revised and Enlarged, with Colored and Other Illustrations. [Philadelphia: P. Blakiston, Son & Co. 1898. Price, \$1.50 net.

Tyson's Physical Diagnosis is too well known a standard work to need any commendation at our hands. It is the sheet-anchor of many a physician, and a perfectly reliable one it has always proved itself. In the present last edition the author has thoroughly revised the former one, and made it conform to the latest

advances which have been made in last years. A notable addition consists in a description of the methods of examining the gastric contents and the examination of the blood. The latter is particularly valuable, in view of the increasing importance which hematology has assumed. As we have previously done, we commend the book, and would advise all those possessing former editions to obtain a copy of this one.

LITERARY NOTES.

Books Received.—The following books have been received during the past month and are reviewed in the present number of the JOURNAL:

A Manual of General Pathology for Students and Practitioners. By Walter Sydney Lazarus-Barlow, B.A., B.C., M.D., M.R.C.P. 8vo., pp. 795. [Philadelphia: P. Blakiston, Son & Co. 1898. Price, \$5.00 net.

A Manual of Modern Surgery, General and Operative. By John Chalmers Da Costa, M.D. 8vo., pp. 911. With 386 Illustrations. [Philadelphia: W. B. Saunders. 1898. St. Louis: Louis S. Matthews, 714 Pine St. Price, cloth, \$4.00; half morocco, \$5.00 net.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology, and Dermatology, and Specially Prepared articles on Treatment and Drugs. By Professors and Lecturers in the Leading Medical Colleges of the United States, Germany, Austria, France, Great Britain, and Canada. Edited by Judson Daland, M.D. (University of Penn.), Philadelphia; J. Mitchell Bruce, M.D., F.R.C.P., London England. and David W. Finlay, M.D., F.R.C.P., Aberdeen, Scotland. Vol. II. Eighth Series. 1898. 8vo., pp. 355. [Philadelphia: J. B. Lippincott Co. 1898.

Atlas of Syphilis and the Venereal Diseases, Including a Brief Treatise on the Pathology and Treatment. By Professor Dr. Franz Mraček. Authorized Translation from the German. Edited by L. Bolton Bangs, M.D. Small 8vo., pp. 122. With 71 Colored Plates. [Philadelphia: W. B. Saunders. 1898. St. Louis: Louis S. Matthews, 714 Pine St. Price, \$3.50 net.

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Inflammation of the Bladder and Urinary Fever. By C. Mansel Moullin, M.D., Oxon., F.R.C.S. 8vo., pp. 156. [Philadelphia: P. Blakiston, Son & Co. 1898. Price, \$1.50 net.

Lectures on Tumors. By John B. Hamilton, M.D., LL.D. 8vo., pp. 143. Third Edition. 21 Illustrations. [Philadelphia: P. Blakiston, Son & Co. 1898. Price, \$1.25 net.

Manual of Physical Diagnosis, for the Use of Students and Physicians. By James Tyson, M.D. 12mo., pp. 278. Third Edition, Revised and Enlarged, with Colored and Other Illustrations. [Philadelphia: P. Blakiston, Son & Co. 1898. Price, \$1.50 net.

Hand-Book of Materia Medica, for Trained Nurses, including Sections on Therapeutics and Toxicology, and a Glossary of Terms, with Dose and Use of Each Drug. By John E. Groff, Ph.G. 12mo., pp. 235. [Philadelphia: P. Blakiston, Son & Co. 1898. Price, \$1.25 net.

The Determination of Sex. By Dr. Leopold Schenk. 12mo., pp. 222. Authorized Translation. [Akron, O.: The Werner Co. 1898.

The Office Treatment of Hemorrhoids, Fistula, etc., Without Operation. By Charles B. Kelsey, A.M., M.D. 12mo., pp. 68. [New York: E. R. Pelton, 119 East Sixteenth St. 1898. Price, 75 cents net.

Proceedings of the Association of American Anatomists at its tenth annual session, held at Cornell University, Ithaca, N. Y., December 28 to 30, 1897, forms a neat volume of 142 pages, in which many excellent papers appear. The association has a membership of 112 active and ten honorary members. The papers are all valuable, and one has led to adverse criticism, viz.: the report of the majority of the Committee on Anatomical Nomenclature, which practically adopted Wilder's classification, which has been denominated fantastic in the minority report.

Hysterectomy for Fibro-Myomata, by Mary A. Dixon-Jones, M.D., of New York City, is an interesting brochure of 64 pages, reprinted from the *British Gynaecological Journal*. The paper is one such as we would be led to expect from an author of the reputation of Dr. Jones, and her remarks are not only pertinent, but contain much food for thought as well as suggestions of a high order of ability.

MELANGE.

Mississippi Valley Medical Association.—The twenty-fourth annual meeting of the Mississippi Valley Medical Association will be held at Nashville, Tenn., October 11-14, under the presidency of Dr. John Young Brown of St. Louis, Mo.

This association is second in size only to the American Medical Association, and has done most excellent scientific work in the past. The annual addresses will be made by Dr. James T. Whittaker of Cincinnati, on "Medicine," and by Dr. George Ben Johnson of Richmond, Va., on "Surgery."

The mere mention of the names of these gentlemen establishes the fact that the association will hear two scholarly and scientific addresses.

Nashville is a most excellent convention city, and is well equipped with hotels; and with the record of the meeting in Louisville in 1897, as an example, the local profession under the leadership of Dr. Duncan Eve, as chairman of the Committee of Arrangements, has prepared to have a better meeting.

Already titles of papers are being received. These should be sent to the secretary, Dr. Henry E. Tuley, No. 111 West Kentucky street, Louisville, Ky., as early as possible, to insure a good place upon the programme. Reduced rates on all railroads will be granted on the certificate plan.

American Medical Association.—At the recent meeting of this association the following was unanimously adopted:

WHEREAS, The American Medical Association did, at Detroit in 1892, unanimously resolve to demand of all the medical colleges of the United States the adoption and observance of a standard of requirements of all candidates for the degree of doctor of medicine, which should in no manner fall below the minimum standard of the Association of American Medical Colleges; and

WHEREAS, This demand was sent officially by the permanent secretary to the deans of every medical college in the United States and to every medical journal in the United States; now therefore the American Medical Association gives notice that hereafter no professor or other teacher in, nor any graduate of,

any medical college in the United States, which shall after January 1, 1899, confer the degree of doctor of medicine or receive such degree on any conditions below the published standard of the Association of American Medical Colleges, be allowed to register as either delegate or permanent member of this association.

Resolved, That the permanent secretary shall within thirty days after this meeting send a certified copy of these resolutions to the dean of each medical college in the United States and to each medical journal in the United States.

Respectfully yours,

WM. B. ATKINSON, *Permanent Secretary*.

Dr. William Pepper.—In the death of Dr. William Pepper, which occurred July 31, in California, America loses one of its best-known physicians. Although closely identified with Philadelphia and its medical interests, Dr. Pepper, through his writing and public spirit, was known in a much wider sphere, and the news of his somewhat untimely death will be felt whenever the English language is read, says the *Boston Med. and Surg. Jour.*

He was born in 1843, and obtained his academic training at the University of Pennsylvania. He later graduated from the medical department of the same institution, and was connected with various hospitals in Philadelphia. It was he who was chiefly instrumental in the establishment of the University Hospital, securing the gift of a site from the city of Philadelphia and serving as chairman of Finance and Building Committees.

In the University of Pennsylvania he was lecturer on morbid anatomy in 1868-1870, and on clinical medicine in 1870-76, and professor of the latter branch from 1876 to 1884, when he was elected to the chair of the theory and practice of medicine. In January, 1881, he was unanimously elected provost of the university. This office he resigned in 1894. He founded the *Philadelphia Medical Times*, and was its editor in 1870-71, and was medical director of the Centennial International Exposition, and for his services in connection therewith received from the King of Sweden the decoration of Knight Commander of the Order of St. Olaf.

He held membership in many national and local societies, and

was at times president of many of them. In 1881 he was given the degree of LL.D. by Lafayette College.

Work for which Dr. Pepper will be appreciatively remembered is that in connection with the development of a more thorough medical course. This advance was secured through the extension of the course of study in the University of Pennsylvania to four years. Toward the carrying out of this plan he made a liberal personal subscription. Our larger medical schools have, as we know, in general adopted a four years' prescribed course, so that the pioneers have lost some of the prestige of the reform which at the time seemed so radical. In 1892, under Dr. Pepper's leadership, the university took another step forward in the establishment of a post-graduate department for women.

His most important literary work was the editing of the "System of Medicine by American Authors." This secured an immediate success, and is recognized as one of the chief American authorities on medical questions. He published, in conjunction with Dr. John F. Meigs, successive editions of their work on "Diseases of Children." Among his contributions to journals or the transactions of societies were many medical papers of value.

Apart from work associated with his profession, which always claimed his first attention, he was a public spirited man in the best sense of that term, and was to Philadelphia a good citizen as well as an eminent physician. His place will indeed be hard to fill, and it will be many days ere we see his like again.

The Marion-Sims College of Medicine has greatly increased its facilities for laboratory instruction. The course now comprises the following: Anatomy, Histology, Pathology, Pathological Anatomy, Pathological Chemistry, Clinical Microscopy, Physiology, Inorganic and Organic Chemistry. During the past session the following specimens from recent autopsies were demonstrated before the class:

Kidney. Chronic interstitial nephritis (12), senile atrophy with fatty degeneration, acute parenchymatous nephritis (3), miliary gummata, granular atrophy (4), passive hyperemia (3), arterio-sclerotic kidneys (3), passive hyperemia with diffuse nephritis, passive hyperemia with infarcts, secondary granular atrophy with cysts (2), degenerated syphilomata in kidneys, em-

bryonic type and movable (3), fatty degeneration (2), diffuse nephritis (3), amyloid kidney, acute miliary tuberculosis, acute toxic nephritis with bile deposits, multiple sarcomata, horseshoe kidney, miliary abscesses in kidney, Ribbert's kidney (2), hydro-nephrosis after enlarged prostate.

Spleen. Chronic splenic tumor, acute splenic tumor (6), senile atrophy (3), pigmentation, chronic interstitial splenitis (2), chronic perisplenitis (3), acute miliary tuberculosis, chronic induration (2).

Liver. Laennec's cirrhosis (8), cloudy swelling, passive hyperemia (6), senile atrophy and fatty degeneration, abscess, nutmeg liver with multiple abscesses, biliary cirrhosis, sugar-cast liver (2), fatty nutmeg liver (3), liver in phosphorous poisoning, acute yellow atrophy, fatty degeneration, monolebular cirrhosis, malarial cirrhosis, general acute miliary tuberculosis (2), primary carcinoma, metastatic carcinoma, senile atrophy, cirrhosis with fatty degeneration (2), circumscribed cirrhosis, sugar-cast liver with miliary tuberculosis, hepatoptosis, cirrhosis with carcinoma, hypertrophic cirrhosis (3).

Heart and Vessels. Concentric hypertrophy of left ventricle, general arterio-sclerosis (7), eccentric hypertrophy of the left ventricle (8), mitral insufficiency (4), chronic myocarditis (2), senile atrophy of the heart, fatty degeneration of the heart (3), hypoplasia of the heart (2); hypoplasia of the aorta (2), tricuspid insufficiency (5), mucoid degeneration of the epicardial adipose tissue (2), chronic endocarditis, hypertrophy of the right ventricle (3), dilatation of the right ventricle (2), cor bibartitum, acute dilatation of the left ventricle, brown atrophy of the heart muscle, fragmentation of the heart muscle, aneurysm of the ascending aorta, total synechia of the pericardium (2), dilatation of the left ventricle, pericarditis sero-fibrinosa (2), multiple aneurysms of the descending aorta, chronic endocarditis.

Lungs. Chronic ulcerative tuberculosis (11), acute croupous pneumonia, edema (3), total synechia of the pleura, atelectasis, miliary tuberculosis (4), cheesy bronchitis and peribronchitis, tubercular pneumonia (2), cirrhosis of the lungs, carnification (2), suppurative bronchitis, vicarious emphysema (3), purulent pleurisy, passive hyperemia, pleuritis ossificans, pleurisy, pyothorax, senile atrophy, emphysema, senile emphysema, multiple sarcomata (2).

Other Organs. Pancreas annulare, suppurative leptomeningitis (2), chronic ulcers in the ileum, acute peritonitis, sporadic dysentery, tropical dysentery, typhoid ulcers in the ileum, degeneration in the foci of the spinal cord, cirrhosis of the pancreas, diabetes mellitus, chronic interstitial pancreatitis, perforation of typhoid ulcers in the ileum (2), ulcerated cancer of the stomach, perforative peritonitis, external and internal syphilitic pachymeningitis, gummata of the parietal bone (2), gastropexia (3), salpingitis, fatty degeneration of the uterus, splanchnoptosis (2), Meckel's diverticulum (3), septic peritonitis, uremic enteritis, tubercular suppurative appendicitis, sero-fibrinous peritonitis (3), hemorrhagic gastritis (2), icterus (3), akathetic icterus (2), ascites (7), hydrops cystitis fillicæ, metastatic cancer of the portal canal, metastatic cancer of the ductus communis choledochus, intestinal hemorrhage, omental umbilical hernia, chondrosarcoma of the testicle, hypertrophy of the prostate, cystitis gangrenosa, struma fibrosa.

Medical Barbarisms.—We are well aware that the English used by writers on medical subjects often does not conform to good usage. "Operate," as a transitive verb, we are unfortunately growing accustomed to, but it is fervently to be hoped that the following, cut from a medical college announcement, may never be accepted: "He will *clinic* (italics ours) in the amphitheatre once weekly," etc. (*Boston Med. and Surg. Jour.*).

The following suggestion with regard to the not infrequent misuse of the word "case" is taken from the *Philadelphia Medical Journal*: "According to the dictionaries and common usage, 'a case' is the instance or history of a disease, the series of symptoms, circumstances and treatment constituting the special occurrence of a disease. Plainly and undoubtedly, therefore, the 'case' is very different from the 'patient.' And yet in every page of medical writings one sees an utter disregard of the distinction—a usage not only inelegant and incorrect, but often misleading and ludicrous. How in the world can a case 'be taken ill,' 'put to bed,' 'have a fever,' 'or die?' The patient may thus be spoken of, but it is absurd to speak of the case having a pulse-rate or temperature, of being comatose or delirious, dead, or posted. 'A case' thus reported is quite likely to suffer cremation."

MISCELLANEOUS NOTES.

Dr. David Clarendon Bryan, 814 Chemical Building, Eighth and Olive, respectfully offers his services to the medical profession as an expert diagnostician. Kinloch telephone A457. Hours, 10 to 11:30 A.M.

Pinus Canadensis in Sore Throat.—W. C. Frederick, M.D., Lono, Ark., says: I have used S. H. Kennedy's Extract of *Pinus Canadensis* (dark), one to three of water, in sore throat from cold, with splendid results, and have now under treatment a little boy, three years old, suffering from strumous diathesis, who had been afflicted over a year with otorrhea. Have been using as an injection two drachms of S. H. Kennedy's Extract of *Pinus Canadensis* to four drachms of water, three to five drops, two or three times a day, the ear previously cleansed with castile soap. The little fellow commenced to improve from the very start and is rapidly improving daily; the discharge has almost ceased. He has been on this treatment for about two weeks.

Intestinal Antisepsis in Fevers.—Though the typhoid, malarial and yellow fever epidemics in Cuba have not yet reached this country, it is well to guard against them by taking precautionary measures. If it be true that the *materies morbi* of these diseases belong to the bacillus group, the remedies manifestly are antiseptic and an antipyretic. As an intestinal antiseptic we have nothing better than salol. The consensus of opinion is in this direction. When we add the antipyretic and anodyne effects of Antikamnia, we have a happy blending of two valuable remedies, and these cannot be given in a better or more convenient form than is offered in "Antikamnia and Salol Tablets," each tablet containing $2\frac{1}{2}$ grains Antikamnia and $2\frac{1}{2}$ grains Salol. The average adult dose is two tablets. Always crush tablets before administering, as it assures more rapid assimilation. It is not our desire to go into the study of bacteriology here; our aim is simply to call attention to the necessity of intestinal antisepsis in the treatment of this class of diseases. If in the treatment of these diseases, an intestinal antiseptic is indicated, would not the scientific treatment of the condition preceding them be the administration of the same remedies? Fortifying the system against attacks is the best preventive of them.

Ponca Compound in "Female Diseases."—Without considering the reasons for the great prevalence of vaginal, uterine and ovarian troubles, summed up in the phrase "Female Diseases," the fact cannot be denied that most American women are so afflicted, and every general practitioner, to say nothing of physicians who devote themselves to the treatment of these complaints, will bear witness to the truth of this statement.

In general practice scarcely a day passes in which the physician is not consulted by nervous, hysterical or anemic females, seeking relief for conditions superinduced by pelvic disorders. As a usual thing the direct cause is remote, and hence cannot readily be determined by the physician who is, however, desirous of aiding the patient as promptly as possible.

How to do this without surgical interference, and in the case of young girls without submitting them to digital examination, is the problem presented.

We make no exaggerated claims when we state that the concurrent testimony of hundreds of physicians, many of wide experience in this class of ailments, goes to demonstrate that in Ponca Compound (presented only in tablet form) the practitioner has a definite remedy of the most potent and beneficial character, which will produce satisfactory results in all cases amenable to internal treatment.

Campho-Phenique at the Front.—

CAMP GEORGE H. THOMAS, CHICKAMAUGA PARK, GA., June 18, 1898.

Campho-Phenique Chemical Co., St. Louis, Mo.—*Gentlemen:* It is a pleasure for us to write you of the results obtained from the use of Powdered and Liquid Campho-Phenique. The liquid we use exclusively as a local application in the treatment of oak and ivy poisons, and find it excellent in relieving the intense burning and itching peculiar to that form of skin eruption. The powder is very useful as a dry dressing in all wounds where that form of dressing is desired. Campho-Phenique, both liquid and powder, has healing properties peculiar to itself. It is an antiseptic preparation of great value and usefulness.

Very truly,

ROBERT M. COWAN, Chief Steward,
EDWIN E. CHURCHILL, Hospital Steward,
GEORGE H. TRADER, Hospital Steward,
CHAS. H. STEARNS, Asst. Surg.

2d Reg. Mo. U. S. A. Vol.

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ORIGINAL COMMUNICATIONS.

**ANESTHETIC LEPROSY CONTAGIOUS—IMPEY'S
THEORY DISPROVED.**

BY ALBERT S. ASHMEAD, M.D., NEW YORK.

I publish here a letter which I wrote to Dr. Glück of Bosnia, to whom I submitted my whole discussion with Dr. Impey. You will find also Dr. Glück's reply:

NEW YORK, July 17, 1898.

DEAR DR. GLUECK: I sent you by the editor (Dr. Ohmann-Dumesnil), numbers of the ST. LOUIS MEDICAL AND SURGICAL JOURNAL containing a discussion I had with Dr. Impey on the question of non-contagiousness of anesthetic leprosy, and immunity in that disease of all tissues except the nervous. Will you kindly give me your opinion on these questions? Do you think that one tissue can be immune while the other tissues remain susceptible? Do you consider anesthetic leprosy with broken skin non-contagious? If so, how do you explain the transference of leprosy by the knife, which has gone through an anesthetic spot, to a healthy body? I think Impey is doing a great deal of harm to the leprosy cause, and to the cause of governmental isolation, by claiming that anesthetic lepers should be turned loose. I shall be very much obliged to you if you will, as soon as possible, let me know your opinion on this point.

Very truly yours,

ALBERT S. ASHMEAD

DR. GLUECK'S KEPLY (Translated from German).

“SARAJEVO, August 10, 1898.

“DEAR SIR—In your honored letter of the 22d of July of this year, you desire in connection with your discussion with Mr. Impey to know my opinion about the contagiousness of lepra anæsthetica, and also about the opinion expressed by the said gentleman as to the immunity of the tissues with exception of the nervous tissue in this form of leprosy. I wish in these lines to satisfy your request; but I must ask you to take cognizance of the following observations instead of any lengthy theoretical discourse.

“In October, 1891, I was sent by my government to make investigations about the appearance of leprosy in the village of Z....., district of Visok. Arrived there, I found in the house ‘L,’ a tuberculous leper, who moreover showed the symptoms of a very far advanced pulmonary tuberculosis; in fact the patient was already dying.

“About a gunshot distance from this house I found in the house of B..... the eldest son ‘M,’ 21 years old, with the symptoms of lepra anæsthetica, in the stage of beginning mutilation. The parents and brothers and sisters of this patient were, as well as those of the preceding, perfectly sound. In the whole village, which consists of twenty-eight houses, I found no other lepers.

“Ten days after my visit the patient ‘L’ died, and all his belongings were destroyed, with the consent of the parents. In the village of Z..... there remained now only the patient ‘M,’ whose parents refused to transfer him to the hospital. I was therefore obliged to content myself with the promise that they would isolate him in the house.

“In the month of April, 1897, there appeared suddenly before me in the hospital the patient ‘M,’ with fresh tubers in the face, and several small tubers on the palate; hands and feet strongly mutilated. On my questioning him, he answered that six months ago he had gone through a regular fever, which lasted about fourteen days, after which the tubers in the face appeared. The detritus detached from the palate tubers was examined microscopically, and a large quantity of lepra bacilli was found.

“At the same epoch appeared the younger brother of ‘M,’ ‘J,’ who presented quite characteristic symptoms, which indi-

cated a two to three years' duration of the disease. 'J' affirmed that he had been sick only a year and a half.

"Both patients are for the time being in the hospital in the Raisnatodorfe of the same, which none of them will leave until their entrance into the hospital. No other case of lepra has been announced.

"It is my opinion that this observation speaks a very plain language. I conclude that the transformation of lepra anæsthetica into lepra mixta is possible, without reinfection of the patient. Consequently the lepra anæsthetica is as contagious as the other forms of this disease.

"In the question of the so-called immunity of the tissues (with exception of the nerves) in lepra anæsthetica I stand on a quite different standpoint from that of Mr. Impey. I have seen by experiments and microscopical investigations made by myself, that in lepra anæsthetica, not only the nerves, but also the skin and the mucous membranes can be specifically changed in the direction of leprosy. This happens more seldom, but it most certainly happens.

"As to the curability of lepra anæsthetica, I am sorry to say I am not able to render a judgment founded on personal experiments. But Hausen admits it, and he has more experience than I.

"For the sending of some of your esteemed papers I give you my best thanks, and

"I am your most respectful and devoted

"DR. LEOPOLD GLUECK."

A Phonographic Record of the Cardiac Sounds.—We learn from the *Reforma Medica*, for June 11th, that Professor G. Rummo, whose efforts had been directed toward the adaptation of the telephone to making permanent records of cardiac and other vital sounds, and who wrote thereon to Thomas Edison, has received a reply from him stating that he also is working along that line, but that it will be some time before the apparatus is finished.

VAGINAL HYSTERECTOMY FOR DOUBLE INFANTILE UTERUS.*

BY DR. EDWIN RICKETTS.

Miss C., a patient of Dr. Henry McGrew, æt. 18 years, consulted me five years ago for dysmenorrhea that all medical treatment failed to relieve. Dilatation and curettement did no good. The abdomen was opened and *one ovary and tube*, left, was found and removed, hoping to bring about the menopause. Since that time she has had no relief. The uterus was less than one inch in depth. The vagina was short and narrow. Since the first operation she was married, and the result was a separation in less than one year. She consulted me in August, 1897, and I advised a vaginal hysterectomy, which was consented to readily. This was done August 11, 1897. On examination, high up to the left was found a small opening, which proved to be a second infantile uterus of one-half inch in depth, with some blood dark in character slowly passing out. Dilatation turned out two drachms of what I took to be retained menstrual fluid. On dilating the other uterus I found the same less than one inch in depth, *with no retained fluid*. A vaginal hysterectomy was done, and proved to be the most difficult of any I have done. In dissecting the bladder from the uterus I opened the same with my finger. This was stitched up, followed by failure, and a second operation for vesico-vaginal fistula done, that I am sure will be a success. The recovery from the vaginal hysterectomy was all that could be desired, none of the stitches remaining. Gauze packing, paying no attention to the incised peritoneum, was used, and an examination in this and the case of Mrs. J. shows a solid vault with not a sign of 'hernia.

* Read before the Obstetrical Society of Cincinnati.

Argon in the Blood.—P. Regnard and T. Schloesing (*Compt. Rend.*) state that they found 20.4 c.c. of nitrogen and argon, the latter constituting 0.419 c.c. of the mixture, dissolved in one liter of blood. They also state that an increase of the amount of nitrogen dissolved in the blood is accompanied by an increase of the amount of argon as well.—*Ex.*

CORRESPONDENCE.

LEPROSY IS INCURABLE, MR. UNNA AND HIS GREAT SUCCESSSES TO THE CONTRARY NOTWITHSTANDING.

To the Editor:

I find in *Janus* of July and August, 1898, that a kind of delusion, which seems to have nearly set in our parts of the globe—that is, Europe and America—is rising most unexpectedly in the Dutch East Indies. Of course, Dr. Unna belongs to us, but I do not think that any leprologist cares very much for the various cures of leprosy of which he is the author. Dr. Unna's very last invention (methinks it is the third) and what he has to say for it is known to everybody, whether we are real leprologists or simple dermatologists. This third invention (if it is the third) has now found a supporter, and it seem a staunch one, in Dr. Voorhuis, of Apeldoorn. This is very surprising.

Mr. Unna, whose high position in the dermatological world nobody will contest, seems to be particularly bent on finding a sure and perfect cure for leprosy. He has now invented a new treatment for the terrible disease, and seems to place in it much more confidence than in his first essay. That first effort had been a purely dermatological performance, with all the mixtures and recipes and tricks and paraphernalia of dermatology. His patient not only found her tubers receding, but was perfectly cured of every symptom of disease. This immense result was proclaimed through the whole medical world. *A leper had been cured*; but she died two years afterwards of leprosy in Rio Janeiro, under the care of Dr. Havelburg. For these facts there are documents.

It would seem that after this failure, Dr. Unna sadly but clearly recognized the truth which seems now to be borne in upon the medical body: that is, that leprosy does not belong to the province of the dermatologist, and cannot be got at by his superficial applications. He says now that the muscles of lepers are immune, and that therefore an injection of meat-juice (Valentine's) will cure the disease. But are the muscles immune? Mr. Impey from Cape Town thinks so; but, although I have a

rather large correspondence, I do not know one leprologist who agrees with him. Every one knows the history of Dr. Carrasquilla of Bogota and of his lamentable failure, after much reasoning on principles as solid as the muscular immunity before said, after many high-sounding assurances and promises. And now it seems that Dr. Unna, in his new issue, seems to be steering in the same direction as Carrasquilla, with the difference that while there was something slightly plausible, at least for the lay mind, in the latter, such poor plausibility does not even exist in Unna's fancy. Between horse-serum and the bovine-juice there is not a step: one is just as immune as the other. Both animals, and all other animals, are immune. There would seem that there would be more chance of a remedy from horse-serum, after inoculation with the leper-blood, than from pure bovine-serum.

Experiments on Carrasquilla's serum have not been wanting. I have myself sent samples of it to Russia, to Norway, to Brazil, to Japan, to Hawaii, to Canada, etc. (mostly at my own expense). Of course, if favorable results had been obtained—results showing clearly the efficacy of the remedy—although the remedy might have seemed theoretically, to a scientific thinker, absurd, yet we should have paused before pronouncing such a severe judgment. We know that clinics are apt to show the way to cure before scientific understanding can throw any light upon it. But what are the facts? They always consist in a more or less observable regression of the tubers, and perhaps some slight general phenomena of apparent amelioration. Carrasquilla obtained an immense amount of these retrogressions. Indeed, there was never a man who proposed a cure for leprosy, and their name is legion, who did not obtain a number of them. If ever I have time I shall make a list of this host of inventors, and a slight account of the retrogressions which they boasted or were said to have obtained. Let me only say this in passing: I venture to say that if Carrasquilla had used nothing but blood of bulls he could have obtained them by this simple means. A certain physician of New Orleans had announced that some absurd system of lepra cure which he thought he had invented would revolutionize the world of medicine. He also obtained the retrogressions—and nothing more.

ALBERT S. ASHMEAD, M.D.

New York.

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A. H. OHMANN-DUMESNIL, A.M., M.D.,

Editor and Proprietor.

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EDITORIAL.

A LESSON TAUGHT BY THE WAR.

Whilst this country has demonstrated to the world that its navy is unexcelled, that its patriotism is unbounded, and that its resources have no limit, it has also received a lesson which it should not forget too quickly. We are not desirous of discussing political rewards in the form of high and responsible positions, nor the elevation of incompetents to positions of trust and responsibility. Our province is more properly limited to a discussion of the medical aspects of the campaign. And it is more particularly in regard to the camps established in this country that we desire to allude. The papers have been filled daily with more or less exaggerated reports of the unsanitary and even death-dealing conditions which have prevailed; and that these reports were not wholly fictitious has certainly been amply demonstrated by the condition of the volunteers who returned, and a careful examination of the localities in which they were encamped.

A certain amount of red tape is certainly necessary to establish system; but when red tape and no system exist it is then that tyranny should be abated and officialism restrained. A commanding officer has no moral right to order a camp to be established in a locality which is, to all intents and purposes, a pest-hole; and that is exactly what has been done. When the list of dead and sick in camp at home exceeds that of the dead, sick, and wounded who have been fighting under a tropical sun abroad, many times over, there must be something wrong somewhere. And when all the soldiers are needing proper treatment on account of a lack of medical supplies, some department is certainly at fault. When soldiers burning with fever and hardly able to stand prefer to attempt to work to going to a field hospital, that institution must indeed be in a deplorable condition.

The prevailing unhygienic conditions have been such as would put a grammar school pupil to shame. A limited supply of water, which was permitted to be polluted, not only by bathing and the washing of soiled clothing, but further by the seepage from the latrines, is what men were expected to drink and remain healthy. It seems peculiar, to say the least, that the Government reservations should be the propagators of disease. Even savages seem to have a better sense of what is fitting and better ideas of hygiene than our authorities nurtured in the hot-houses of modern scientific research.

The medical corps is certainly to be blamed in large part for this state of affairs. In matters affecting the health of soldiers it is usually the custom to give the surgeons a hearing; but in this case they did not seem desirous of having one. The army medical corps has been subjected to many criticisms by civilians in the medical profession heretofore. In view of the inefficiency and incompetence exhibited by the latter in camp hospitals, the former can well afford to snap their fingers. The great mistake made, no doubt, lay in the fact that medical men from the North and East were expected to successfully recognize and treat malignant types of malaria which they had never seen before they went into camp. Many a case of yellow fever, typhoid, and other equally serious conditions were quickly recognized by physicians from malarious districts as severe cases of malaria, and rapidly mended under an active treatment directed against that condition.

The lesson which the war has taught us is that prompt and efficient management of the medical department of the United States Army is an absolute necessity, and this implies the proper medical supplies in sufficient quantity of medicines, instruments, bandages, tents, cots, and all the other paraphernalia necessary to the organization of proper field hospitals. The army medical corps should have competent officers of a grade sufficiently high to be able to prevent a line officer, no matter how high placed, from choosing camping grounds which will decimate troops by disease. In addition to this, army surgeons should be chosen rather for their efficiency in medicine and surgery than in statistics of no practical value. Had we the time we could call attention to many more of the defects now existing in the medical organization of the army which need reform, but sufficient has been said to lead any one interested in the subject to pursue his own investigations unaided.

MEDICAL SOCIETIES' MEETINGS.

After a well-merited vacation during the torrid summer months, the local medical societies have resumed their meetings, and the winter promises to be a busy one in the matter of scientific communications and discussions. We hope that all discussions will be limited to scientific subjects, and not trench upon the domain of ethics; for whenever this latter is injected into anything it seems to invariably lead to acrid remarks and acerbity of temper. Whilst the past summer has not been very prolific in the production of new discoveries or great advances, many have been silently working at problems whose completion is assured for the near future, and we may await a speedy announcement of them before medical societies. No doubt that a certain portion of the attention of members will be devoted to camp hygiene, military surgery, camp hospitals and their diseases, and cognate subjects. They are certainly all interesting, more especially in view of the fact that there seems to be a prospect of establishing a larger standing army in this country, which will necessarily lead to a large medical corps.

Medical societies are certainly expected to be large contributors to the scientific advancement of the medical profession at this time, for it seems to be the tendency to do everything possible to usher out this century in a blaze of glory in every de-

partment of industry, science, and the arts. Medicine certainly cannot lag behind, and the chief instrument in forwarding medical thought and contributing to its wider dissemination is the medical society.

TO OUR SUBSCRIBERS.

As a general practitioner wrote to us recently, many interesting, curious, and even rare cases are observed by country practitioners which never see the light of day through the medium of the medical press. This is not only an injustice which these silent workers do to themselves, but it is even a greater one done to the profession at large. Whilst some members of the profession are prolific writers, others, through a sense of false modesty, diffidence, or shame, are never heard from. What we desire is to receive contributions from these. If you do not think that your articles will be accepted on account of inelegant diction, they will be cheerfully dressed in such shape as will prove pleasing to you. Do not hesitate to write, but acquaint city physicians with the fact that you see and treat successfully cases which would puzzle many a supposedly more scientific man. We hope that our readers will act upon the suggestion.

The Tenth Annual Meeting of the Tri-State Medical Society of Alabama, Georgia and Tennessee, will be held at Birmingham, Ala., Tuesday, Wednesday and Thursday, October 25, 26, and 27, 1898.

Mountain Sickness Caused by Fatigue.—The Swiss Alpine Club stated that, according to the personal experience of the members and many accounts of high-mountain climbing in other countries, "mountain-sickness" is due to extraordinary physical exertion under very unusual conditions, rather than to rarefied air. The unanimous opinion of the climbers is that their excursions are beneficial to their health.—From "The Jungfrau Railway," by EDGAR R. DAWSON, M.E., in the September *Scribner's*.

MEDICAL PROGRESS.

MEDICINE.

Gastric Erosion.—Dr. Dieulafoy (*Bull. de l'Acad. de Méd.*, No. 3, 1898) concludes:

1. Besides the simple gastric ulcer, there is a form of very superficial erosion, varying in size from sixpenny to a four-shilling piece, for which suitable name is "exulceratio simplex."

2. This latter may cause even more terrible hematemesis than most cases of simple ulcer.

3. The loss of substance does not extend in depth below the mucosa, including the muscularis mucosæ. The accompanying hematemesis is caused by ulceration of the arteries running in the muscularis mucosæ. The opening in the vessel is usually lateral, and thus in the worst position for natural arrest of hemorrhage.

4. Clinically the disease may present all the classical signs of simple gastric ulcer, but more often its onset is insidious or completely latent until revealed by profuse hematemesis.

5. The best treatment in this form of simple erosion is by operation. The quantity of blood vomited rather than the frequency of hematemesis being the indication for operation, a large amount usually coinciding with ulceration of a large artery, a fatal condition unless remedied at once.

6. It is very important to remember while operating that the stomach may at first sight appear perfectly normal, in spite of an erosion being present. Thus, the mucous membrane must be examined very carefully, if necessary with a lens. Occasionally patches looking like ecchymoses may serve as a guide to the position of the erosion.

7. In the absence of special indication it is sufficient to suture together the bleeding part with a small part of the healthy mucosa round it. The prognosis after operation for exulceratio simplex is better than for ulcer simplex, because of the limited extent of the former lesion.

Some Observations on the Use of Aqueous Extract of Suprarenal Glands, Locally, in the Upper Air Passages.—Dr. Henry L. Swain of New Haven read a paper with this title

before the American Laryngological Association, which met in Brooklyn, May 16, 17 and 18, in which he said:

Having used this agent locally for some months as the result of the suggestion given some two years since by Dr. W. H. Bates, he had become interested in the possibilities which might be developed under its more extended use.

The drug seemed to produce marked local contraction of the blood vessels by virtue of the stimulation of its muscular fibers in the walls of the small vessels, and their effects were very pronounced in the case of the erectile tissues in the nose, causing it to shrivel and to lose volume.

He concluded his paper:

1. We have in the aqueous extract of suprarenal glands a powerful local, naso-constrictor agent, and a contractor of erectile tissue, which it is safe to use in very considerable amounts without any dangerous or deleterious effects locally or to the general constitution of the individual.

2. These local effects can be reproduced in the same individual, apparently, any number of times without entailing any vicious habits to either the tissue or the individual.

3. The use of the extract seems rather to heighten the effects which may be expected from any given drug which may be used locally after it.

4. In acute congestions it has its widest application and greatest opportunity for good, but in certain chronic conditions of the hay-fever type, where redundant tissue seems prone to develop, it can be relied upon as one of the most helpful adjuvants which we have at command.

5. The only difficulty seems to be the producing it in quantities and preventing its decomposition on standing.

The Treatment of Inoperable Sarcoma With the Mixed Toxins of Erysipelas and Bacillus Prodigiosus.—Dr. William B. Coley (*The Journal of the American Medical Association*, August 27, 1898) concludes an interesting article on the above topic as follows:

A careful study of my own cases, as well as those thus far treated by other men, justifies, I believe, the following conclusions, which, I may add, are in almost perfect accord with those recently expressed by M. Moulin.

1. A considerable number of cases of inoperable sarcomata,

the correctness of the diagnosis of which is beyond question, have entirely disappeared under this method of treatment.

2. A large proportion of these cases have remained free from recurrence more than three years after treatment, the period which has generally been accepted as of sufficient length to justify their being regarded as permanent cures.

3. The different varieties of sarcoma differ widely as regards the manner in which they are acted upon by the toxins. The results thus far show that the treatment is far more successful in the spindle-celled variety, more than half of the cases of spindle-celled sarcoma in which the injections were made having disappeared. Round-celled sarcomata yield far less readily, although a number have been successfully treated. No case of melanotic sarcoma has up to the present time shown more than slight temporary improvement.

4. The action of the toxins upon sarcomata must be regarded as a very rapidly progressing coagulation necrosis with fatty degeneration. This action is not the result of inflammation, nor does it resemble the destructive action of a local escharotic like carbolic acid; but it is rather specific in character, exerting a direct influence upon the tumor cells.

5. The specific action is further confirmed by the fact that several cases have entirely disappeared when the injections were made subcutaneously, remote from the tumor.

6. This method of treatment is attended with a certain amount of risk, unless certain precautions be taken. The chief dangers to be guarded against are: *a*, collapse from too large doses of the toxins; *b*, pyæmia from insufficient care as regards asepsis, especially in cases where there is a granulating or sloughing surface. To prove that the risks are small, I may add that in more than two hundred cases treated personally, death was caused by the injections in but two, and one of these cases was so nearly moribund that no treatment should have been begun.

7. The use of toxins after primary operation as a prophylactic against subsequent recurrence has much to recommend it. If used in such cases, mild doses should be sufficient, and if proper precaution is observed the treatment should be free from risk.

Car Sickness.—Dr. William M. Bemus (*International Journal of Surgery*, September, 1898) says:

Now as to the treatment of these cases of car sickness. We

may divide the treatment into preventive and emergency, *i. e.*, when we are called to see the patient en route, never having seen her before. When a person comes to me who details a history of car sickness, and who contemplates a journey, I advise a dose of calomel at night and epsom salts before breakfast the day she starts, as I have been informed that during the journey and often for a day or two after arrival at the destination the bowels are constipated. Light, digestible food is allowed. When I am called to see an emergency case of this disease, my usual treatment is to lay the patient down in as comfortable a position as possible. Apply a bandage to the eyes with cold water, and give as medication a tablet consisting of acetanilid $3\frac{1}{2}$ grs., sod. bicarbonate $\frac{9}{10}$ gr., sodium bromide $\frac{1}{10}$ gr., citrated caffein $\frac{1}{2}$ gr., and if the heart's action seems weak $\frac{1}{100}$ gr. of trinitrin. I have given this treatment, and I have heard from some cases that the symptoms became less marked after administration. The majority of cases treated have gone on to their destination, and I have not heard from them in any way.

Clinical Study of Interstitial Nephritis, with Methods of Diagnosis.—Dr. Everett J. Brown (*New York Medical Record*, Sept. 3, 1898) summarizes an interesting article with the above title as follows:

Interstitial nephritis is a very common disease, especially after forty years of age, and is often unrecognized for years. It is practically incurable, but life may be prolonged indefinitely in many instances by proper mode of life. A diagnosis must be made from a syndrome which often does not include either albuminuria or the detection of casts, as follows: (1) polyuria with continued low specific gravity; (2) reduction in the daily excretion of urea; (3) hypertrophy of the heart (without valvular disease), and increased pulse tension; (4) various nervous symptoms, such as occipital headache, vertigo, dyspnea and insomnia.

The following symptoms or conditions when found in any case, but especially in persons over forty years of age, demand a careful examination of the urine for evidences of interstitial nephritis: (1) nocturnal urination; (2) unaccountable weakness; (3) dyspepsia of a flatulent character, or a causeless diarrhea, violent or spasmodic vomiting, or repeated "bubious attacks;" (4) dyspnea, asthmatic attacks, or chronic bronchitis; (5) repeated headaches, especially if postcervical, persistent unexplained neu-

ralgias, vertigo, insomnia; (6) bounding heart action or visible pulsations in various parts of the body; (7) severe hemorrhage from the nose or stomach; (8) dimness of vision, sudden blindness, or tinnitus aurium; (9) coma, convulsions, twitchings, confused intellect, apoplexy.

THERAPEUTICS.

Apomorphine and Its Uses.—Dr. Samuel A. Visanska (*New York Medical Record*, July 2, 1898) says in an interesting article on this subject:

In puerperal convulsions no drug is so highly lauded as apomorphine given subcutaneously. It has almost taken the place of morphine and other narcotics, and its action here depends not upon the emetic powers, but on the general relaxation of all the muscles; and I contend that as long as there is relaxation of the system a convulsion cannot take place; therefore, the drug should be used when we have a case of threatened puerperal convulsion, or if we arrive at the patient's bedside during one of these unsightly and distressing attacks. The dose should not be large enough to produce emesis, but just enough thoroughly to relax the system. I generally begin with gr. $\frac{1}{10}$ – $\frac{1}{20}$ subcutaneously, and if the desired effect is not produced in thirty minutes the dose is repeated.

In epilepsy a hypodermic of apomorphine will prevent or cut short an attack, according as it is given before or during the fit. It can also be used as an antispasmodic in many other diseases.

Salicylic Acid in Pneumonia.—Dr. DeBecker (*Le Scalpel*, June 17th, 1898) prescribes a new treatment for acute fibrinous pneumonia which has given him excellent results in general during the last few years. Dr. DeBecker thinks that salicylic acid really acts on the inflammatory process of the lung and tends to abort in pneumonia. He has employed it in twelve cases which terminated by rapid cure. Salicylic acid is an excellent antiseptic, and has also the property of dissolving the fibrous coagulum. The doses vary according to the age of the subject and the character of the disease. He consults the symptom of expectoration; the moment that this is clearly produced he diminishes the dose. In children he gives one-tenth of a grain hourly; or, if the child is very small, once in two hours. In adults he gives five-tenths of a grain every two or three hours. With the aged

the same dose every three or four hours, watching the condition of the heart. Contra-indications are affections of the heart and extreme weakness.

Lactophenin as a Hypnotic.—Christiani again calls attention to the excellent hypnotic effect of lactophenin, which he has demonstrated in a long series of cases of insanity of various forms. From one to three grammes of lactophenin in 150 grammes of gum arabic solution, taken an hour after the evening meal, will produce a deep and quiet sleep within half an hour, from which the patient awakes after from four to nine hours without the least unpleasant after-effect. Differing from many other hypnotics, it exerts no disturbing influence on the heart's action, and is therefore specially suited for the insane who are subject to cardiac or vascular affections, and lung and kidney diseases. In cases of reduced effect through habitual use, a temporary change to some other hypnotic is advised.—*Pharm. Centralhalle*, August 25, 1898.

Ovarian Neuralgia.—To relieve the pain, Dr. C. S. Martin (*St. Louis Medical Era*) recommends:

℞ Extr. Belladonna 4 grains.
 Extr. Stramonium 5 grains.
 Lactophenin 1½ drachms.

Made into twenty (xx) pills.

S. Take a pill two or three times a day; and where anemia exists add to the above treatment:

℞ Ferratin tablets, 8 grains each..... 1 ounce.
 (An original box of 50 tablets.)

S. Take one tablet after each pill.

PHYSIOLOGICAL AND PATHOLOGICAL NOTES.

Fossil Bacteria.—M. B. Renault (*Ann. des Sciences Natur.*; ref. *Brit. Pharm. Jour.*) has long worked at the indications of bacteria found in geological strata, and now publishes the general result of his observations in a paper illustrated with a large number of drawings. As might be expected from their simple structure, bacteria appear to have been coeval with the first appearance of organic life on the earth, the cocoid form being apparently earlier than the bacillar. Indications of their presence are found in bone, teeth, scales and coprolites, as well as abundantly in vegetable tissues, the spores and sporanges of ferns

appearing to have been especially subject to their attacks. The species are, as a rule, distinct from those at present in existence.
—*Am. Med.-Surg. Bull.*

Poisoning by Quinine.—Cresswell (*Lancet*, May 1, 1897) has reported the case of a woman, forty-seven years old, to whom he was called because it was thought she had fallen into a fit. He found her prostrated, unable to speak, and with a pallor of countenance like that of impending death. On inquiry, it was learned that the patient had taken, before breakfast, about two teaspoonfuls of quinine dissolved in acid, after which she had vomited. The hands and face were extremely pale, and the pulse was quick and irregular—almost fluttering—small, thready and feeble. The heart-beats, though clear, were wanting in strength, and were of a dull, subdued, metallic character. Hearing was entirely lost, and vision was greatly impaired. For about eight hours the woman remained speechless and quiescent, though not quite unconscious. At the end of this time she began to speak, while some color had returned to the cheeks, and the action of the heart had become quieter and stronger. A sedative prescription insured a comfortable night, and on the following day the patient was much improved, although still deaf, especially in the right ear. The pupils were large, and reacted but sluggishly. Perfect recovery ensued in the course of a few more days. In describing the onset of her symptoms, the patient stated that she at first felt faint, then dizzy, and was next sick; tingling appeared in the fingers and all over the body, and finally unconsciousness developed without pain.

Experimental Researches on the Effects of Different Anesthetics.—Drs. W. H. Thompson and Robert C. Kemp (*New York Medical Record*, September 3d, 1898) make the following conclusions:

As regards ether, it would appear that this agent produces a special contraction of the renal arterioles, with a consequent damaging effect upon the renal secretory cells, similar to those which follow clamping the renal artery. The kidney shrinks in bulk, with consequent fall of the oncometric tracing, and accompanied by diminution of secretion, marked albuminuria, and finally suppression. As remarked before, this condition of the kidney is not due to any change in the general arterial circulation.

These facts would seem to contraindicate the use of ether as an anesthetic when renal disease is present, and particularly when with albuminuria there is a tendency to pulmonary oedema.

The effect of chloroform upon the kidneys seems to be *nil*. The oncometric curves are nearly normal, and are affected only through sharing in general circulatory changes. The secretion of urine continues up to the last moment of life, and the albuminuria is so slight that its presence at all is apparently due only to respiratory interference. Meantime the action of the chloroform on the heart, as shown by the carotid tracings, is directly depressing. Ether, on the other hand, shows evidence of cardiac stimulation throughout.

The A. C. E. mixture shows the special effects both of ether on the kidneys and chloroform on the heart, either being predominant according to the mode of their administration. If a large percentage of air be simultaneously inhaled, as is the case when chloroform alone is administered, the effect is that of chloroform cardiac depression without the effects of ether upon the kidney. If, however, the A. C. E. mixture be administered more as ether is when used alone, then a study of the carotid and kidney tracings shows clearly that we have both the cardiac depression of chloroform and the renal derangement of ether combined. This seems to cause such powerful effects upon the breathing and upon the heart that artificial respiration had to be resorted to in every dog to which this mixture was freely administered, which was not the case with either ether or chloroform. As far as our observations go, therefore, we fail to see any advantage in this mixture of chloroform and ether, but rather the reverse.

These objections appear to be still more applicable to Schleich's anesthetic. The cardiac depression of chloroform and the renal disturbance of ether are simultaneously developed in the tracings, similar to, but to a greater degree, than with the A. C. E. mixture. Schleich claims that mixtures of different anesthetics of different boiling (*i. e.*, maximum evaporation) points are safer than the administration of the anesthetics alone, on the assumption that the absorption of the anesthetic as to quantity depends upon its boiling point. The more volatile an anesthetic is the less will be absorbed into the blood in a given time. Hence ether, whose boiling point is 93° F., will not be absorbed so rap-

idly as chloroform, whose boiling point is 144° F. If, therefore, an anesthetic could be produced whose boiling point was the same as the normal temperature of the blood, the exact amount absorbed with each inspiration would be eliminated with each expiration. By causing the mixture to be at different degrees above this point, he claims he can regulate at will the excess which the expiration would not remove, and thus the amount of the anesthetic retained in the blood. His addition of petroleum ether or benzine to sulphuric ether and chloroform was further to facilitate the formation of a mixture or solution of anesthetics which would afford a safer means of absorption.

We believe that practically this reasoning is fallacious, because it assumes that these mixtures or solutions constitute a new chemical, homogeneous compound, which will always be inhaled as one substance in definite chemical proportions, just as a compound salt is one substance when swallowed after solution in water; whereas the fact is that ether remains ether and chloroform stays chloroform during the inhalation, and that the proportion of ether which will be absorbed will depend upon the mode of administration, a tight cone allowing an amount of chloroform to be taken which would be extremely dangerous, while the free admixture of air would so lessen the absorption of ether that its specific effect would be proportionately lessened. Meantime the adoption of benzine is not the adoption of an anesthetic; for Dr. S. P. Meltzer, in a communication to us on his experiments upon rabbits with petroleum ether, by inhalation through mouth and nose, as well as through a tracheal canula, says: "Petrol ether is not a narcotic. If a rabbit was put under deep anesthetic by ether, and then ether suspended and petrol ether administered, the lid reflex soon reappears and the rabbit woke up. The inhalation of pure petrol ether alone soon brings out a distinct tetanus and opisthotonos, to which the animal soon succumbs if the inhalation be continued. If the inhalation be discontinued at the appearance of the convulsions the animal survives the tetanus, but this is then followed by a distinct paresis of all the extremities. If ether is given with the petrol ether, the tetanus movements are suspended, but not so the paralytic effects; the rabbit dies of paralysis of the respiratory muscles.

There is, moreover, a physical reason for doubting the manageability of mixed anesthetics, due to the fact that if two

agents of different maximum points of evaporation, the more volatile of the two of them will increase the evaporation of the other by carrying off more of the less volatile one than if the latter were volatilized by itself. Thus more chloroform would be inhaled if mixed with ether than if it were mixed separately.

The Schleich's mixture has been used in a number of case without dangerous effects, but the same may be said of chloroform and ether the world over. Mixed anesthetics of any kind might be employed in hundreds of instances without unpleasant results, though actually they were more dangerous than unmixed agents, for with chloroform itself surgeons have published reports of ten thousand administrations of it without one serious accident.

Gonorrheal Infection by Flies.—Prof. Wielander, of Stockholm, made the following observations: A fly, having come in contact with gonorrheal secretion, may still be contaminated with it after three hours without the gonococci present in it having lost their ability to develop. By this fact alone an epidemic of 33 cases of blenorrheal conjunctivitis, which Wielander witnessed in 1883 in a maternity home could, be explained. Gonococci were found in the secretion from the eyes of all the children affected. In the secretion from the urethra of the mother whose child was first affected with conjunctivitis gonococci were present. They were found in the discharges of only two other women. The children of these mothers must have been infected in some other way, particularly as great care was exercised after the first cases had appeared. If we take into consideration the frequency with which flies settle upon the nose, eyes, etc., of these young children, the connection between the former and infection seems pretty clear.—*Pediatrics*.

A Conclusive Test for Human Semen.—The importance of being able positively to identify human semen is well recognized in criminology, and by confirming the test proposed by Florence of Lyons with that derived by Dr. Whitney of Massachusetts (*Amer. Drug.*) it seems that we have at last a means for positively identifying semen stains, even when they are as much as two and a half years old. Florence's reagent consists of a solution of 1.65 grammes of potassium iodide and 2.54 grammes of iodine dissolved in 30 cc. of distilled water. When a drop of the liquid obtained by moistening a seminal stain is

placed side by side with a drop of this solution on a slide, large numbers of peculiar brownish-red pointed crystals appear. They are rhomboidal and closely resemble hemin crystals. Dr. Wyatt Johnson states that he readily obtained the reaction with stains a year old. He also confirms Florence's statement that other secretions of the body, such as blood, urine, sweat, saliva, tears, bile, milk, pus, nasal or vaginal mucous, will not give the reaction. With the semen of animals in some cases he obtained a doubtful reaction. Dr. W. F. Whitney also obtained the reaction readily. But as alkaloids give a precipitate with the reagent, its value, like the guaiacum test for blood, is chiefly negative. The last writer has found the following method of examining a seminal stain, even as old as two and a half years, successfully: A drop of fluid obtained from the moistened stain is evaporated and fixed by a flame. The same is stained with cosin and methyl green and mounted. At the base of the head of the spermatozoa is a hemispherical portion which stains a deep green, while the anterior part and tail stain red. This serves at once to identify them, as there is no other oval spore or cell which has an eccentric hemispherical nucleus. He furthermore claims that the test proves them to be human, as in no other animal is there a deep staining. When this test is combined with Florence's there ought to be no difficulty in coming to a conclusion.

DISEASES OF WOMEN AND CHILDREN.

Hypodermic Injections of Alcohol and Tincture of Belladonna in the Treatment of Apparent Death in the New-Born.—According to the *Semaine Médicale*, Dr. Brown, to the classical means of combating apparent death in the new-born, has added a new remedy. He is accustomed to inject under each arm of the child five drops of whiskey, to which has been added a drop of tincture of belladonna. Soon after the child opens its eyes and utters a cry which is indicative of the beginning of respiratory function.

In cases where alcohol and belladonna do not resuscitate the child immediately, the author gives a hypodermic injection of from four to eight grammes of hot sterilized water, and introduces into the stomach the same quantity of this liquid, to which has been added a drop of aromatic spirits of ammonia.

Placenta Previa, with Special Reference to Treatment.

—Dr. W. H. Wenning (*Buffalo Medical Journal*, Oct., 1897) makes the following summary of his very interesting paper:

The tampon is indicated: 1, in hemorrhage toward the end of pregnancy; 2, in the beginning of labor when the os is closed; 3, in moderate dilatation of the surface—then use cervical tampon.

Contra-indicated: 1, when dilatation is complete or nearly complete; 2, when it fails to arrest hemorrhage, even when dilatation is not far advanced.

Rupture of the membranes indicated: 1, when os is well dilated and either spontaneous labor or artificial delivery may occur; 2, when by this method hemorrhage is better controlled than by other means; 3, when, in the absence of labor pains, it will be followed by immediate pressure of the presenting parts.

Contra-indicated: 1, when os is undilated and pains good; 2, in faulty presentation of the fetus, unless it can be followed immediately by version.

Version is indicated: 1, when the os will admit two fingers and combined version can readily be made—Braxton Hick's method; 2, when the os is well dilated or dilatable and hemorrhage is profuse—direct or internal version; 3, in desperate cases—accouchement forcé.

Contra-indicated: 1, when, with a moderately dilated os, combined version cannot be skillfully made (the cervical tampon); 2, when, with a well-dilated os after rupture of the membranes, the head immediately engages in the cervix.

In all cases strict supervision from the onset of labor to the end of delivery.

To summarize, the following should be the treatment in the order of time in placenta previa, dependent on the amount of hemorrhage and the condition of the patient:

(a). Before labor: 1, hemorrhage slight, expectant treatment; 2, hemorrhage moderate, vaginal tampon; 3, hemorrhage profuse, also try tampon and then induce labor.

(b). In the beginning of labor: 1, hemorrhage moderate, first tampon vagina until dilatation sufficient for the introduction of the cervical bag, or, if skilled assistants be at hand, Braxton Hick's method of bipolar version; 2, hemorrhage profuse, first cervical tampon; if not successful, gradual manual dilatation of os until

(c). Labor is well in progress: then rupture membranes and deliver by podalic version, or if hemorrhage is arrested by the descending head apply forceps, or if pains be good permit spontaneous expulsion.

Senile Uterine Catarrh.—Dr. Holliday Croom, physician and clinical lecturer on diseases of women, Royal Infirmary, Edinburgh (*The Edinburgh Medical Journal*, April, 1898), says:

In regard to the differential diagnosis between primary corporeal cancer and senile uterine catarrh, the following points are worthy of consideration:

First and foremost, in most cases of primary fundal cancer, periodic and severe pain is an early and prominent symptom; whereas in senile uterine catarrh the pain is irregular and colicky, or, if not, it is slight and constant.

Secondly, in cancer fetid discharge, at least in the early stages, is unusual, because the os is closed and the face of the cancer is protected from external influences; whereas in catarrh, especially in the first two forms I have mentioned, fetid discharge is a prominent and early symptom.

Thirdly, local examination in cancer finds the uterus distinctly enlarged, sensitive, and early becomes heavy and fixed; whereas in the simple condition the uterus is either normal or only slightly enlarged, and remains freely movable throughout.

And lastly, dilatation and local exploration reveals the presence of the neoplasm in the one case and the absence of all irregularity in the other.

SURGERY.

Injuries to the Fingers.—Dr. Thomas H. Hancock (*International Journal of Surgery*, September, 1898) writes:

Some time ago I commenced to use wet dressings made by surrounding the wound with sterilized gauze, then applying gutta percha tissue in such a manner that it could be opened at the end and a solution could be poured in often enough to keep the gauze wet, the end being closed after each application so as to retain the moisture. Almost any antiseptic solution can be used, provided it is of the proper strength, a bichloride of mercury solution 1-5000 or carbolic acid solution 1-40 being probably the best. Since I have commenced to use this dressing I

have not had a single case to suppurate, and have had no trouble in removing the dressing, whereas with the dry dressings the majority of them suppurated and all of them were hard to remove.

Dr. Robert T. Morris on Appendicitis.—In an article entitled "A Unique Case of Appendicitis," in the *Medical Record*, July 30th, 1898, Dr. John Young Brown, of St. Louis, Mo., speaks of the indications for operation and quotes Dr. Morris as follows:

- "There are no group of symptoms which will allow us to make a rational prognosis as to the eventful outcome, or the prospective complications, in any progressive case of appendicitis, and we must abandon the hope of having any such classification of symptoms for a guide in the future. Attempts will be made, from time to time, to classify symptoms for prognosis for small groups of cases, but they will fail because of the nature of the disease. I speak, then, unequivocally, knowing that some patients are to die and others are to suffer, unnecessarily, because their advisers will believe themselves to be upon a prognostic track. There is but one rule to be followed, and that is to isolate an infected appendix as promptly as we would isolate a case of diphtheria, and for practically the same reason, viz.: the infected appendix will probably infect other structures, and the infected throat is likely to infect other throats. An infected appendix is isolated when it is out of the patient. All cases of appendicitis that are otherwise within surgical limitations, and that are in reach of competent surgical services, are cases for prompt isolation of the appendix. Various periods of waiting have been tried with the effect of proving that the question is wedge-shaped, with the greatest number of deaths at the broad waiting end, and the smallest number of deaths at the point of isolating an infected appendix while infection is limited to the confines of the appendix. We are held to our rule by two cardinal principles, viz.: (1) Every hour of progress of any acute attack of appendicitis means increased damage to viscera; and (2) with no infected appendix the patient would have no complications of appendicitis, if we leave him with no infected appendix."

In a surgical clinic, given at the Post-Graduate Hospital, New York, and reported in the *International Journal of Surgery*,

August 1st, 1898, Dr. Morris speaks of palpating the appendix as follows:

"It is quite possible to feel the normal appendix in most cases, just as we can feel the Fallopian tubes and enlarged peritoneal glands. In palpating for the appendix it is important to remember that one must first get an idea of the general feel of the abdominal viscera and estimate the amount of resistance offered by the muscles. The muscles are often in a state of spasm. If you palpate gently with two or three fingers on the opposite side you can readily get the landmarks. The ascending colon is the first landmark. Place the three fingers upon the rectus muscle, then bring them down over the edge of the muscle, using three fingers of the right hand to feel with and three fingers of the left hand to press with. The examining fingers are pressed by means of the three others down under the border of the right rectus abdominus muscle at the level of the navel, and slowly drawn toward the examiner. My sole landmark, the ascending colon, is then felt to slip out from under the fingers, and repeating the process toward the cecum, we soon come to the end of the latter, and there begin to hunt for the appendix by rolling the cecum to one side or the other of the finger tips. The proximal end of the appendix is found near the distal end of the cecum, and we then follow the rest of the appendix in any direction. The proportion of appendices that cannot be palpated will become smaller and smaller as the finger tips become educated. The point about using no muscular effort in the examination is as important in palpating appendices as it is in palpating ovaries and tubes. The very delicate sense of touch is preserved if the left hand is used for pushing upon the examining hand."

Gunshot Wounds.—Dr. Nicholas Senn (*The Journal of the American Medical Association*, July 9th, 1898) concludes an article on this subject as follows:

1. In theory and practice military surgery is equivalent in every respect to emergency practice in civil life.
2. The wounded soldier is entitled to the same degree of immunity against infection as persons in civil life suffering from similar injuries.
3. The fate of the wounded rests in the hands of the one who applies the first dressing.
4. The first dressing should be as simple as possible, includ-

ing an antiseptic powder, composed of boracic acid, four parts; salicylic acid, one part; a small compress of cotton, safety pins and a piece of gauze forty inches square.

5. Any attempt to disinfect a wound on the battlefield is impracticable.

6. The first dressing stations and the field hospitals are the legitimate places where the work of the hospital corps and company bearers is to be revised and supplemented. All formal operations must be performed in the field hospitals where the wounded can receive the full benefits of aseptic and antiseptic precautions.

7. Probing for bullets on the battlefield must be absolutely prohibited.

8. Elastic constriction for the arrest of hemorrhage must not be continued for more than four to six hours for fear of causing gangrene.

9. The X-ray will prove a more valuable diagnostic resource than the probe in locating bullets lodged in the body.

10. Gunshot wounds of the extremities must be treated upon the most conservative plan, the indications for primary amputations being limited to cases in which injury of the soft parts, vessels and nerves suspend or seriously threaten the nutrition of the limb below the seat of injury.

11. Operative interference is indicated in all penetrating gunshot wounds of the skull.

12. Gunshot wounds of the chest should be treated by hermetically sealing the wounds under the strictest aseptic precautions.

13. Laparotomy for penetrating gunshot wounds of the abdomen is indicated in all cases where life is threatened by hemorrhage of visceral wounds, and the general condition of the patient is such as to sustain the expectation that he will survive the immediate effects of the operation.

Operations on Albuminurics.—Dr. Mongour (*Le Scalpel*, June 19th, 1898) has observed the behavior of albuminurics in the presence of operations. Surgeons differ on this question; some few declare that they do not concern themselves about this condition; others have fixed an arbitrary quantity of albumin (generally from five to six grams per litre) in excess of which they do not operate; again, some first institute a course of treat-

ment by milk diet and do not intervene until the albuminuria falls within the prescribed limit.

Dr. Mongour considers the question purely medical and thinks that we may divide the patients into three classes:

(1) Albuminuria, constituting the only symptom of renal lesion, is no contra-indication to an operation, whatever it may be.

(2) Albuminuria, whatever may be the quantity, co-existing with slight signs of Bright's disease (auditory, visual troubles, vertigo, etc.), is a contra-indication. The first thing is to reduce to a minimum the work of the kidneys. If this can be done and the functional signs disappear, intervention is legitimate. If, however, this is not the case, we should abstain from operation unless death threatens.

(3) Albuminuria, whatever may be the quantity, existing in connection with gross signs of renal insufficiency, edema, ascites, etc., is a contra-indication. If these functional troubles come on in the course of an acute or a subacute nephritis, let the crisis pass before intervention. In the case of chronic nephritis institute treatment which, if it gives favorable results, will permit of legitimate intervention. If, on the contrary, the function can be considered as lost, the surgeon ought not to undertake an operation unless non-intervention means certain death to the patient.

In this category of patients Dr. Mongour makes one reservation, considering the case where a nephritis, accompanied by all the classical signs of Bright's disease, seems to be daily aggravated by a suppurative lesion.

Gastro-Enterectomy in Non-Cancerous Affection of the Stomach.—Dr. Lambret (*Le Nord Medical*, Dec. 15, 1897) reports three cases recently operated upon.

The first was a man, 50 years of age, who had suffered with his stomach for seven years. He was a great smoker and drinker. During three years he had vomited several hours after eating. He had, at intervals, slight hematemesis, and complained of pain in the epigastrium. Six days after entering the hospital a new hemorrhage occurred, which still further weakened the patient. A gastro-enterostomy was performed according to the method of Chaput. The lesion of the stomach consisted in an indurated pyloric plaque, resembling an ulcer in the process of evolution. The third day after the operation the patient was able to eat a chop, and his recovery was uneventful.

The second case was that of a man, aged 62 years, who had suffered for a long time with pains in the region of the stomach, but for three years these pains had been almost continuous. After repeated hemorrhages he came under the treatment of a physician who helped him somewhat with pills of condurango. After remaining in the hospital for five months he left, but returned soon, complaining of very acute pains. The stomach was not dilated.

A gastro-enterostomy was performed, the operation lasting 50 minutes. There was no cancer or ulcer but a pyloric ulcer. The sequelæ of the operation were normal except for the persistence of pain, which gradually grew less. This pain after operation has been principally observed by Tuffier, who attributes it to regurgitation. The patient was cured in the course of a month.

The third patient was a man 45 years of age, who had also suffered for a long time with his stomach. He had pyrosis and vomiting coming on two hours after meals. The hematemesis had not been abundant, but he had black stools. The operation showed an indurated focus on a level with the heart, which explained the sufferings of the patient, which were localized principally on the left side of the linea alba.

Wet Dressings.—A wet dressing should be above all non-irritating. Carbolic acid in even two per cent. solution may cause severe dermatitis, while corrosive sublimate will often give rise to very distressing local effects and even constitutional symptoms. The very best lotion known to the writer for general use in any part of the body is known under the name of Burow's solution. It is easily prepared by dissolving twenty-eight grams of lead acetate crystals in water, pouring this solution into a vessel containing a solution of seventy grams of alum in water, and then diluting up to 800 grams. A precipitate of lead sulphate forms and must be thoroughly filtered out. The clear liquid remaining should be diluted further on using with from three to five parts of water. When you wish to use it pour the required amount of water into a vessel and add the Burow's solution from the "stock" 800 gram bottle. It forms an excellent wet dressing in cases of burns, acute eczema, furunculosis, ulcerations of the skin, etc. Use wringing wet gauze and cover well with rubber tissue, oil silk or oil paper.—*Int. Jour. Surg.*

ORTHOPEDIC SURGERY.

In Charge of Phil. Hoffmann, M.D., Chief of the Orthopedic Clinic, Missouri Medical College; Member American Orthopedic Association.

Pathology in Its Relation to Orthopedic Surgery.—R. W. Lovett (President's address, delivered before the American Orthopedic Association; *Boston Medical and Surgical Journal*, Vol. CXXXVIII., No. 20), says that twenty-five years ago the first chair of orthopedic surgery was filled by Sayre, in the Bellevue Medical College. To-day instruction in orthopedic surgery is given in at least forty-two American medical schools. The American Orthopedic Association has proved a stimulous, and stands to-day the custodian of the future of orthopedic surgery in America. In the ten volumes of its transactions, one finds papers dealing with the clinical, mechanical and operative aspects of almost every known orthopedic condition; but a comparative scarcity of papers on their experimental and pathological sides. In general medicine and surgery a pathological basis is being sought, and, in certain directions, established; bacteriology has modified all things; serum therapy has accomplished much; causes are sought more every year in the autopsy-room and in the laboratory. American orthopedic surgery cannot and has not escaped this tendency. When Sayre and Taylor shaped American orthopedic surgery there was little or no pathology of joint disease or bone tuberculosis. They bent their energies to the mechanical and practical side. Their impetus is still felt. But conditions have changed. A pathology, whose relative importance is vastly greater, has been elaborated.

Where our knowledge of underlying conditions is vague, our results are less certain than where we know accurately the pathological conditions with which we are dealing. For example, take hip disease, where we lack "that exact pathological knowledge which would interpret for us clinical phenomena. * * * We do not know just what certain symptoms mean in pathological language. The correction of severe club-foot is one of the most satisfactory operations in orthopedic surgery. Here our pathological knowledge is accurate. The clinical phenomena fit with the pathological changes. Precision and success mark our work under these conditions. There is "need of better pathological knowledge of inflamed, irritated and neurasthenic joints, especially joints affected by rheumatoid arthritis and syphilis.

Joint tuberculosis comes next in demand for the further search as to its methods of invasion and extension, and, especially, for an exact interpretation of common symptoms." Flat-foot, and the static deformities, and also rickets and infantile paralysis, with their accompanying deformities, stand in need of investigation as to their real underlying pathology.

Congenital Absence of Clavicles—Dr. C. A. Hamann (*Cleveland Journal of Medicine*, June, 1898) exhibited one of these rare cases before the Cleveland Medical Society. The sternal extremities only of both clavicles were present, and were represented by osteo-cartilaginous bodies an inch and a half in length. The condition, which in no way interferes with the patient's work, was discovered by accident a few years ago. The muscular development is good, and the shoulders can be approximated in front. The age of the patient is not given.

Congenital Absence of Both Patellæ.—Dr. G. S. Samuelson, New South Wales (*New York Lancet*, June, 1898), reports such a case in a girl aged five years. She was well developed, save for a total absence of both patellæ. The extensor tendon was thin and narrow, and lay free over the anterior aspect of the knee-joint. The fingers could readily be approximated under it. The posterior ligament of the joint was weak and allowed it to be hyper-extended about forty-five degrees. There was little lateral movement or rotation of the legs possible.

Death Following Forcible Reduction of Deformity in Spondylitis.—Vulpian (*Am. Jour. Med. Sci.*) reports a case in a boy five-and-a-half years old, where fatal collapse, preceded by clonic cramps in the limbs, gnashing of teeth and contracted pupils, occurred after the reduction and during the application of the jacket. A partial post-mortem showed no sufficient cause in injury of the cord or its membranes. Malherbe also reports a case in a boy of twelve, who had the disease for a year and a half, where epistaxis and dyspnea followed the operation. The boy died on the eleventh day. The autopsy disclosed fibrinous pleurisy and rupture of tuberculous abscess.

To Determine the Thickness of the Pad Used in Pes Planus.—Dr. D. T. Marshall (*Medical News*, July 16, 1898), describes an apparatus to determine this. It consists of a block of wood in the center of which is a recess in which slides a smaller block,

that may be raised or lowered by means of a thumb-screw. The foot is placed on the apparatus, the arch resting on the moveable block; the patient bears his entire weight upon it. The block is then raised by means of the screw until the arch of the foot is comfortably supported. The height is read off on a scale at the side, and the pad is made to correspond with same.

DERMATOLOGY AND SYPHILOLOGY.

Treatment of Eczema by Picric Acid.—Brousse recommends the employment of picric acid in some cases of eczema, the indications being an acute attack, either primarily or supervening on a chronic, particularly should there be any tendency to epidermic ulcerations, and in the seborrheic or impetiginous eczema of children. But the method is contra-indicated in chronic cases, and generally in those accompanied by epidermic thickening, though should there be much itching in the latter it may prove beneficial. The method of employment is as follows: A saturated solution of picric acid (12 g. of the acid dissolved in 1 litre of tepid water, allowed to become cold and decanted) is painted on the affected parts with a brush, the application extending slightly beyond the limits of the eczematous area, then covered immediately with absorbent wool, or it may be with a compress soaked in the same solution, and over which the wool is applied. This is allowed to remain on for about two days. An indispensable precaution would seem to be previous cleansing of the skin with some antiseptic, so that no suppurative organisms may be allowed to remain in contact with the diseased skin during the time that it is covered by the wool dressing. The staining due to picric acid may subsequently be removed by washing in a saturated solution of lithia carbonate.—*Indian Lancet*.

Life Expectancy in Syphilitics.—Dr. James Nevins Hyde (*Medical Examiner*, April, 1898) says:

1. Inherited syphilis is one of the most fatal of all disorders affecting the human race, and under the most favorable circumstances, irrespective of abortion and miscarriages, nearly 90 per cent. of the children born living subsequently die.

2. Acquired infantile syphilis is very rare, is an exceedingly manageable disease, and is one in which probably a large proportion of infants survive.

3. Between 80 and 90 per cent. of all adult patients affected with acquired syphilis escape its gummatous complications.

4. The percentage of cases affected with gummatous syphilis who perish is not known, but one may doubt if it exceeds 2 per cent. of the from 10 to 15 per cent. of those who suffer from gummatous complications.

5. The expectancy of life is probably now affected by coincidence of syphilis with other diseases, and the prospects that the patient with acquired syphilis will ever suffer with either struma, tuberculosis, or cancer is exceedingly small.

6. The natural evolution of acquired syphilis in untreated cases in the adult is not in the direction of a lethal issue, but rather in the line of physical degeneration and grave complications due to involvement of the nervous system and of the bones without affecting organs essential to the continuance of life.

7. It is unfair to charge an extra risk for the insurance of syphilitic applicants otherwise in sound health and insurable, as any assumed unfavorable prospects due to the fact of infection are more than counterbalanced by the extreme improbability of death from either tuberculosis or cancer.

8. If what precedes has a fair foundation in fact, it follows that the syphilitic applicant for life insurance should be examined with a view not so much to his syphilitic history as to his condition with relation to all other items making up a satisfactory risk. In other words, if he has a good family history, a sound constitution, excellent habits, and has reached, but not passed, a satisfactory age, his expectancy of life is probably that of other individuals in similar conditions, without added risk in consequence of his specific disorder.

A Case of Bilateral Zoster.—While the literature referring to bilateral or double herpes zoster is not, strictly speaking, extremely limited, the condition may be properly spoken of as rare.

Dr. J. Abbott Cantrell describes, in the *Philadelphia Polyclinic* (Vol. VII., No. 11), a case seen by him recently at the Philadelphia Hospital.

These cases of double zoster present the characteristic symptoms seen in the ordinary unilateral form, and the point of interest in this reported case is merely that, the classical case affecting only one side, it aids to remove doubt concerning the

diagnosis in these rare instances in which the typical symptoms appear on both sides. The prognosis and treatment are the same as in the ordinary form.—*Am. Med.-Surg. Bull.*

Photo-Therapeutics of Lupus Vulgaris. — FINSSEN. — Photo-therapeutics of lupus vulgaris (*La semaine méd.*, 1897, 59). The fact that light acts markedly bacteriacidal led the author to study therapeutically the chemical rays of the electric light. He constructed an apparatus like a telescope, in which the rays were first parallel and then became concentric, then passed through distilled water and an ammoniacal solution of copper sulphate. The strength of the currents varied from thirty-five to fifty ampères. He found that the concentrated sunlight killed cultures of the prodigious fifteen times quicker than the ordinary sunlight, and that the concentrated electric light acts still quicker. Cases of lupus vulgaris—a superficial skin disease due to the tubercle bacillus—were exposed to the action of the concentrated chemical rays about two hours daily for from several days to several weeks. Soon the edges began to flatten out, the reddening became less, and the ulcers cicatrized, the scar having a good appearance. Stronger electric light, current of eighty ampères, and a lens of rock crystal was more efficacious. Of fifty-nine cases of lupus which were treated, twenty-three were cured, thirty which had improved were under treatment, and six discontinued it.—*The Dominion Medical Monthly*.

GENITO-URINARY DISEASES.

When May the Subjects of Gonorrhea be Deemed Cured?—The *Journal des praticiens* regards this question as of the gravest importance, because the compulsory abstention from intercourse bears hard upon the patient, while its too early resumption is fraught with danger to the woman. It is commonly recommended to have recourse to the “reaction of Neisser,” which consists in producing an artificial irritation of the urethra by injecting some drops of a solution of nitrate of silver, whereby a secretion is caused which may be examined for gonococci. For the same purpose, the drinking of beer, the passage of bougies, etc., are recommended. Dr. Delefosse condemns these measures as not only without value, but actually dangerous, by reason of the risk of producing cystitis, orchitis, etc.

His method of procedure is as follows: Coitus is not permitted so long as there remain filaments in the urine in any number, or so long as the filaments are long or fall rapidly to the bottom of the vessel, or contain gonococci, pus organisms, or even pus cells. When the filaments are short, few in number, slight and floating, he directs the patient to present himself early next morning without having urinated since night, and having thoroughly fatigued himself on the preceding day. Pressure is made per rectum on the prostate, then the finger is drawn exteriorly along the urethra for its entire length, pressing firmly. At the same time, if necessary, a bougie may be introduced to afford a point of resistance. He collects from the meatus the discharge so obtained, and submits it to microscopical examination; finally, the canal is scraped to depth of two inches or two inches and a half from behind forward, and the scrapings are examined under the microscope. If these two examinations are negative, he directs the patient to drink, during the following week, beer or champagne, to ride a bicycle, and to take long walks; then he makes another morning examination. If this proves negative, he sanctions coitus after a fortnight.—*N. Y. Med. Jour.*

Adrenal Tumors of the Kidney.—Dr. Bayard Holmes (*The Journal of the American Medical Association*, Aug. 20, 1898) says:

A study of the literature of this subject may be summarized in the following conclusions:

1. Remnants of the adrenal body are found in various parts of the genito-urinary tract in a large per cent. of all post-mortems (90 per cent.).

2. The suprarenal capsule or adrenal body is a ductile gland essential to life. It secretes a substance which slows the pulse, contracts the capillaries, and removes the pigment from the skin. When it is destroyed or removed the patient dies; or if partially destroyed, he takes on the condition recognized in Addison's disease. When the adrenal body is greatly increased in its function the skin is blanched, the heart's action is increased in power but slowed, and the capillaries are contracted, and the whole vascular system undergoes the degeneration of arteriosclerosis.

3. About one-third of the tumors of the kidney appearing in adult life are of adrenal origin; but only a small proportion of

these show a tendency to metastasis, and these metastatic foci are usually confined to the lungs or to the bones, and only rarely are they found in both places.

4. A few of the adrenal tumors produce the symptoms of poisoning with the adrenal extract. The poisoning does not always seem to be proportionate to the size of the tumor.

5. The removal of the tumor before metastasis takes place results in subsidence of the symptoms of poisoning. The tumors may be removed without loss of kidney substance, or by a complete nephrectomy.

Cystitis and Urine Infection.—Dr. Max Melchior, in his book on “Cystitis and Urine Infection” (also *New York Medical Record*, July 30th, 1898), reaches the following conclusions:

1. Every cystitis is due to microbes, with the exception of rare poisoning with chemical substances.

2. In general, we find in the urine of cystitis a pure culture of a single species, generally in large amounts.

3. The bacillus which is found most frequently in cystitis is identical with a very common intestinal parasite, the bacterium *coli commune*; it is pyogenic and infectious, and of varying virulence.

4. In the urethra, the male prepuce, and the vagina pathogenic bacteria are frequently found—bacteria which when conveyed into the urinary bladder can give rise to a cystitis.

5. The microbe itself does not give rise to cystitis; still there is a bacterium—*proteus* of Hauser, which by simply entering the urinary bladder may give rise to a cystitis.

6. The microbes can produce a cystitis only when the urinary bladder, on account of the influence of various predisposing circumstances, especially retention or trauma, is made susceptible to the infection.

7. Retention of urine, as well as trauma pure and simple, is incapable of producing a cystitis. The microbe is always the deciding cause.

8. The varying nature of the cystitis depends upon pre-existing lesions and upon the character of the substrata in connection with the various peculiarities of the bacterium, among which the virulence must be rendered prominent.

9. In every cystitis the urine contains pus cells, but in varying amount; the existence of a catarrhal cystitis is to be looked

upon as doubtful. Even non-pyogenic microbes may cause a suppurative of the urinary bladder.

10. The ammonuria may be a necessary condition for the occurrence of a cystitis; most frequently, however, it is but a subordinate phenomenon which appears in the course of cystitis or remains away altogether. The majority of cystitis cases are acid.

11. Besides tubercle bacilli, an acid cystitis may depend upon the bacterium coli commune, the streptococcus pyogenes, and on rare micro-organisms (gonococcus of Neisser, bacillus typhi abdominalis). If the sterile urine does not produce any culture upon the ordinary media, the great probability is that a tuberculous cystitis exists.

12. There exists a real gonorrheal cystitis, caused by the gonococcus of Neisser.

13. The urinary fever is partly due to transmission of the urinary microbes into the blood; partly—and certainly more frequently—to an absorption of the soluble toxins which occur in the urine.

14. To prevent a cystitis, we must not only be certain of a thorough asepsis at the urethral orifice, but we must also irrigate the urethra with boric acid solution.

15. In the local treatment of cystitis nitrate of silver is the sovereign remedy.

DISEASES OF THE NOSE, THROAT AND EARS.

Diseases of the Mastoid, Their Course and Treatment.

—Dr. Frank S. Milbury (*The Journal of the American Medical Association*, April 30, 1898) says:

If abortive measures have not been successful, then operative interference must be resorted to, and the following are symptoms as laid down by Politzer and others generally recognized as indicating the operation:

1. Painful inflammatory infiltration of the covering of the mastoid process, especially if an accompanying narrowing of the meatus or obstruction of the tympanum by granulations, renders it probable that a septic condition exists in the mastoid process. The operation becomes imperative when there is high fever and signs of meningeal irritation, and when the symptoms in the mastoid process have repeatedly occurred and resisted all anti-phlogistic treatment.

2. Spontaneous pain in the mastoid process, increased by pressure and accompanied by bulging of the posterior-superior wall of the meatus.

3. Persistent or occasionally remittent pain in the mastoid process, with marked tenderness, even if there be no swelling of the external integument, and no apparent obstruction to the escape of discharge from the tympanic cavity.

4. When cholesteatoma existing in the tympanic cavity can not be removed, or after its extraction with the malleus and incus the condition is not improved by careful irrigation.

5. Fistulæ in the mastoid region and gravitation abscesses below it.

6. Extensive caries and necrosis of the posterior osseous wall of the meatus.

7. In all cases of middle-ear suppuration, during which symptoms of meningeal irritation or of incipient sinus-phlebitis make their appearance.

8. Continued septic suppuration in the attic, the symptoms remaining unchanged after removal of the malleus and incus and several months' energetic treatment, even if there are no general symptoms, excepting an offensive otorrhea.

9. Pain in the mastoid process developing in certain rare cases of connective tissue hypertrophy, in osteo-sclerosis, and in osseous scars after the healing of a mastoid operation.

A Case of Fibrinous Rhinitis.—The following are the chief points observed in a case of this uncommon disease. A boy, aged 10, was brought on account of bloody discharge of the nose for the last three days. There was a history of nasal obstruction on the left side for a fortnight following a bad cold, and of slight ozena for two days. He was otherwise well, and in his usual good health. There was no history of sore throat, or other illness, nor of the introduction of a foreign body. The pharynx and naso-pharynx were normal, and the nose was healthy on the right side; on the left it was completely obstructed owing to a purulent looking mass filling the narrow space between the deflected septum and turbinates. This mass came away like a pledget of wool, in the form of a rolled-up membrane, its consistence being between that of coagulated muco-pus and a diphtherial cast. Under the microscope it was found to be partly muco-pus, but chiefly fibrinous, but without

definite cellular structure. Further examination of the nasal chamber showed the mucous membrane sodden, and in one spot red and raw, the passage itself being little more than a chink. No foreign body of polypus was found, though careful search was made.

Under the influence of syringing with an antiseptic and alkaline lotion, the mucous membrane became healthier. As this occurred the new epithelium could be seen forming a whitish surface, which after a time came away in flakes, leaving a red surface beneath. This process recurred in a decreasing degree until at the end of six weeks the mucous membrane was quite normal. During this time no foreign body or other cause could be discovered, and there were no constitutional symptoms whatever.

The condition at first suggested "membranous" rhinitis as appropriate, but to call it membranous in the sense that a diphtherial cast is so would be as misleading clinically as to consider it mere secretion; it was something between the two. The total absence of constitutional symptoms also made it highly improbable that the disease bore any relation to diphtheria.

With the few descriptions of cases of fibrinous rhinitis, however, it corresponded very closely, clinically and pathologically. No doubt other forms of rhinitis may be "fibrinous" to some extent, and though the line drawn may be somewhat arbitrary, yet this disease seems a fairly well defined one.

Clinically, somewhat similar appearances are seen after the application of the cautery or caustics, and also in the new epithelium growing over a cut surface, as, for instance, after removal of a spur, but in this case these causes could be excluded; there was, however, slight superficial ulceration.

Noteworthy points in the case were: 1. The marked nasal stenosis. 2. The fibrinous nature of the exudation with the recurring exfoliation of the epithelium. 3. The complete absence of constitutional symptoms.

Clinically, the features of the case suggested that the stenosis, causing pent-up discharge and secretion, was one of the chief causes.

On the question whether such an affection of the mucous membrane is associated with a particular micro-organism, as has been suggested, this case, I regret to say, throws no light.

Bacteriological examination was not satisfactory, being limited to stained cover-glass preparations; no bacilli were found, but no cultivations were taken.

I have once seen a similar condition, and that was in a child where both sides were affected; in that case cultures were taken by Mr. St. George Reid, who found micrococcus albus liquefaciens and bacillus termo of Vignal, but no others.—*Br. M. J.*

Dulwich.

F. J. DIXON, M.A., M.B., B.C.

NEUROLOGY.

Railway Spine.—These are the cases that bring two types of expert witnesses: one side swearing that the man is seriously injured, the other side testifying that the symptoms are fraudulent and only assumed for the purpose of mulcting the railway company. The examination of such patients must be conducted with great care, and, whilst it is necessary to be guarded against so-called "litigation symptoms," fairness and justice demand that all real symptoms should carry due weight. The following suggestions may be of value:

1. Do not rely upon a single symptom, but weigh all the symptoms.

2. Study the manner of the patient, and test his truthfulness or studied attempts to exaggerate his complaint.

3. Exclude all pains the existence of which cannot be confirmed by any physical evidence, and which rests mainly upon the unsupported statements of the patient (Dercum).

4. Admit all pains the signs of which are evoked without any previous warning or suggestion (Dercum).

5. Pay special attention to every symptom which is beyond the control of the patient, as temperature, deformity, persistent rigidity of the muscles, vomiting, sweating, bloody urine, etc.

For estimating the value of pain as a symptom, Dercum recommends a method of examination which is often of great value. Superficial tender spots are tested by injecting at one of the painful areas either cocaine or, as suggested by Keen, simple cold water. If the pain is genuine the injection relieves that particular spot, while the others remain tender.

Dr. J. W. MacDonald (*A Clinical Text-Book of Surgical Diagnosis and Treatment*, page 509).

A Rapid Cure of Sciatica.—Dr. Richard Bloch (*Die Heilkunde*, 1898) remarks that the general practitioner, especially in the country, is compelled to rely chiefly upon the use of drugs in the treatment of sciatica. The following case is cited as an example of the value of salophen in this class of patients:

Z. T., aged 36 years, maltster, had suffered for two weeks from pains in the right leg which he designated as sciatica. He was fully justified in his diagnosis, since he had previously had three attacks of sciatica in the right leg which lasted for from eight to fourteen days in spite of medical treatment. At his first visit, November 24th, the patient limped in walking and supported himself with a cane. The gluteal and femoral muscles appeared weaker on the right side than the left (this slight atrophic condition being attributed by him to a prolonged attack of sciatica three years before). The characteristic pressure points of sciatica were distinctly present. Salophen was ordered in 1.0 gm. doses, four times daily, and an indifferent liniment.

November 26th the patient was already to walk without a cane, with only a slight limp, and desired another supply of the salophen powders, which, he said, acted more efficiently than any of the numerous drugs employed in his previous attacks. Under continued use of the drug, which had an admirable effect upon the pains and functional disability, the patient was completely cured and capable of work on December 4th, although his attack at the beginning had threatened to be as severe as previous ones which had resisted all kinds of treatment.

Surgical Interference in Cerebral Disease.—Dr. Fisher (*New York Medical Journal*, April 16, 1898) gives the following special indications for operation:

1. Fracture of the skull, causing compression with resulting paralysis, epileptic seizures or coma.
2. Meningeal hemorrhage, traumatic or occurring in pachymeningitis hemorrhagica.
3. Tumors of the brain when situated near the cortex of the brain, or even in the cerebellum, but not when deeply situated or at the base. When the tumor is not thought to be a removable one a partial operation may be indicated, as the removal of a large area of the skull often relieves certain marked symptoms of tumor, as vomiting, headache, and convulsions.

4. Localized epileptic seizures of the so-called Jacksonian type. I would include in this class of cases, whether due to injury or arising from unknown cause, that is, so-called idiopathic epilepsy, if limited to special parts of the body, as the arm, leg, or face, or all three, if only one side of the body is involved. In such cases I would advise the excision of these cerebral centers. This, indeed, results in paralysis, perhaps a permanent form; but in many of these patients we have already a certain degree of paralysis, and in that case we simply increase a previous disability.

5. Cerebral abscess, and especially in the form most commonly presented to us, that following otitis media. I will not include under this head operations in microcephalia or in infantile cerebral hemiplegia with epilepsy, although in some cases; owing to the otherwise hopeless character of these conditions, I am in favor of operative interference.

Some Interesting Cases of Brain Injury, with a Statement of the Mechanism of the Production of Cerebral Lesions by Blunt Violence, and a Brief Summary of the Pathology and Symptomatology of Acute Cerebral Trauma.—Dr. R. Van Santvoord (*New York Medical Record*, April 30, 1898) concludes an article with the above title as follows: Primary unconsciousness after an injury to the brain may be due entirely to shock, *i.e.*, reflex contraction of the cerebral arteries. This is rarely fatal, and if uncomplicated is recovered from in a few moments or hours. Apparent complete recovery, however, does not exclude the possibility of the existence of latent lesions which may manifest their existence later. Sudden or rapid insensibility after recovery of consciousness indicates hemorrhage. Prolonged unconsciousness without elevation of temperature means compression from hemorrhage, either epidural or subdural. The absence of fever does not necessarily exclude laceration. Prolonged unconsciousness with elevation of temperature indicates grave lesions of the brain substance, with or without considerable hemorrhage. The suppression of the functions of a limited portion of the brain by laceration, unless involving some vital spot such as the medulla, is not a serious matter, as regards life at least. Such lacerated portions may, however, when undergoing secondary softening, give rise to grave

or fatal secondary hemorrhages, or may be the point of departure of secondary inflammation. In these latter cases the multiple minor lesions scattered widely through the brain, comprehended under the term "diffuse cerebral contusion," are often pathologically of more importance than the few or isolated foci of extensive laceration. The elevation of temperature associated with these lesions has been attributed to injury to the thermic centers. On this supposition it is difficult to account for the continued rise of temperature, *post mortem*, so frequently observed. In one of Phelps's cases the temperature was 98.6° F. at death, and 109° F. thirty minutes after death. The diffuse cerebral hyperemia with or without edema found after death was not, in Phelps's experience, associated with cellular infiltration. Judging from symptoms, it must be regarded as indicative of grave alterations of nutrition of the cortex, which we may call "inflammation" or not, according to the definition we choose to give to that word. McEwen, in his work on infectious inflammations of the brain, describes in acute serous meningitis, due to bacterial infection, in which, as observed through a trephine opening, the vessels of the pia mater are seen floating in an extensive serous infiltration of that membrane. *Post mortem*: much of this fluid was found to have drained away after the skull was opened, and nothing more than a slight hyperemia remained. In the *Medical Record* for December 4, 1897, Dana, under the heading, "Acute Serous Meningitis," describes a similar process associated with degenerated processes of the nerve cells as due to alcohol, which is probably a factor in a large percentage of cases in our hospitals. Secondary bacterial infection plays its part in some cases, doubtless; but in one such as that described at the beginning of this paper, in which the temperature was 102.8° F. within an hour of the injury, this must surely be excluded. Gross lesions of vital centers, compressions from primary or secondary hemorrhage, and the secondary effects of diffuse cerebral contusion and inflammation from infection, may be stated as the causes of death in cerebral injuries. It is the second of these only when occurring between the dura and the skull, which is certainly susceptible to surgical relief, though it is possible that withdrawal of cerebro-spinal fluid by lumbar puncture of the spinal canal may be of service in cases in which serous effusion is an important pathological factor.

OPHTHALMOLOGY.

The Parasite of Trachoma.—A brief telegram to the *Daily Chronicle* of Saturday last announces that Dr. Leopold Müller, a professor at the University of Vienna, has succeeded in discovering the bacillus of the so-called "Egyptian Eye Disease." The affection meant can only be trachoma, since the microorganisms of other contagious affections of the conjunctiva have been identified long ago. Assuming it to be true, the importance of the discovery can scarcely be exaggerated. Although many parasites have already been described in trachoma, there is still much doubt as to the particular one that gives rise to the malady. For example, Sattler, Michel, Schmidt, Kucharzki, Goldschmidt, Staderini, and Stephenson regard certain diplococci as the causal agents, while Shongolowicz believes that a bacillus is the cause. In view of this divergence of opinion, we shall await with considerable interest further details from Vienna.—*Press and Circular.*

Mydrin, the New Mydriatic.—Dr. S. Snell writes to the London *Lancet*, July 16, saying that he desires to confirm "my observations on this mydriatic in the *Clinical Journal* in 1896, which were, I think, the first published in this country. I would like to add that I again refer to the value of mydrin in my volume on the 'Examination of the Eye' (Pentland), published this year. My object in writing now is to reiterate my opinion of the efficacy of mydrin as a rapid pupil dilator without affecting the accommodation, and the effects of which quickly pass off, features marking it as especially adapted for producing mydriasis for ophthalmoscopic purposes. The present price of the drug is, however, almost prohibitive of its use. I understand that it still costs something like \$6.25 a drachm, but of course a demand for it would soon bring about a reduction in price. It is further to be desired that some firm should furnish the drug in the form of gelatin discs."—*Journal American Medical Association.*

TERATOLOGY.

Congenital Displacement of the Kidney.—Wehner reported the case and was the first to attempt operative interference in this condition (*Kal. f. Frauen u. Kinderärzte*). The

diagnosis was not made until after the operation. The symptoms consist in the presence of a tumor, lying on the promontory or sacrum, and the kidney of this side is absent. At times pyuria or hematuria makes its appearance. The rectum is abnormally situated, namely, to the right of the sacrum. This would be demonstrated by inflating the intestine with air. Palpation of the entrance to the pelvis does not reveal any other origin of the tumor.—*Ex.*

Anomalous Truncus Brachicephalicus Associated with Aortic Disease.—At a meeting of the Pathological Society of London, Dr. Freyberger exhibited the above, which was from an adult in whom the diagnosis of aneurism had been made in consequence of the pulsation of the abnormal artery at the root of the neck, associated as it was with dilatation of the ascending part of the aortic arch. The malformation consisted in the origin of the left carotid from the trunk of the innominate; the condition was not rare and was normal in some animals.

The president pointed out that the disposition present was that described by Galen and the older anatomists as normal in the human subject, the description being probably taken from the lower animals.

Unusual Form of Meckel's Diverticulum.—Mr. Tregelles Fox recorded the case of a boy who died of peritonitis due to rupture of the distended end of a diverticulum. The diverticulum was much dilated at the free extremity, and had led, in consequence of the pressure occasioned, to great congestion of a part of the small intestine. The rupture of the process itself appeared to have been due to its rotation, which had been followed by sloughing.

MEDICO-LEGAL.

Health Officer Not Entitled to Extra Compensation.—The Board of Health of Mt. Vernon employed Dr. James Reynolds as Health Officer at a salary of \$75 a month. It was his duty, among other things, to prevent the spreading of contagious diseases and to isolate those so afflicted, so as to prevent the exposure of others to the disease. Dr. Reynolds, in March, 1894, reported a case of smallpox, and the Board of Health by resolution instructed him to "employ a special physician, compensation not to exceed \$20 a day." Dr. Reynolds employed a physi-

cian, but, finding him unsatisfactory, took charge of the case himself, charging \$5 each for thirty visits. When he reported another case of smallpox he was directed by the board to take charge of it himself. He charged \$10 a visit for sixteen visits. He recovered judgment for his total bill of \$355 on the ground that the services rendered were over and above the ordinary services of a health officer, and that the salary of \$75 a month did not include these services, which were extra hazardous. The judgment has been reversed by the Second Appellate Division, which held, by Justice Hatch, that the duties of a health officer, though not specifically defined by the statute, embraced necessarily the character of service which was rendered in this case. While the board could employ other physicians, the health officer himself could not exact extra compensation, upon the basis that the services he rendered were extra hazardous. The fact that the city had formerly given extra compensation for such services would not give the plaintiff a valid claim.

Suit for Transplantation of Skin.—A singular action was concluded in the Auckland (N. Z.) Supreme Court on Thursday, 3rd instant. Miss Baker, a young lady, sued Dr. Arthur C. Purchas for £500 damages for personal injuries. The doctor was attending a patient in the hospital suffering from extensive burns, and was desirous of performing an operation of skin-grafting if he could find anyone willing to give their skin. The plaintiff and two others consented, she being under the impression that only a small piece of skin would be taken, and that she would suffer little inconvenience. Instead, however, a considerable quantity, 52 inches square, was taken from her arm and leg while under chloroform, and she had to remain in the hospital for eleven days. The defense was that the plaintiff voluntarily consented to give what skin was required. It transpired that the patient died. A verdict was given for the defendant.—*Australasian Medical Gazette*.

Michael Angelo a Physician.—According to the *Riforma Medica* for August 4th, Michael Anglo was not only a great painter but a physician also, and there is in the Vatican library a manuscript in his handwriting containing a series of remedies for diseases of the eyes.

SOCIETY PROCEEDINGS.

CINCINNATI OBSTETRICAL SOCIETY, OCT. 14, 1897.

Case Reported by Dr. Thaddeus A. Reamy of Cincinnati.

Mr. President: This specimen was removed from a case of carcinoma of the uterus in which the infravaginal portion of the cervix had chiefly been destroyed, and on one side entirely. I present the specimen in order to call the attention of the members present to some peculiarities in reference to the patient and some difficulties I encountered in its removal.

The patient was a woman 38 years of age, the mother of three children, one daughter 19 years old. She gave the history of having lost weight very rapidly recently. She had never suffered much hemorrhage, but had an offensive discharge and some hemorrhage. She had rapidly emaciated recently and had some cough. Physical examination of the chest revealed a chronic bronchial condition, but I could not find any positive evidence of phthisis pulmonalis. She had some diminished action of the kidneys, and she had, at two or three intervals during the month, shown some albumin in the urine. The uterus was almost immobile. It was, as you see, not very greatly enlarged, although it was larger than it appears here. It has been since its removal in a 5 per cent. solution of formaldehyde and is hardened. I was not able to drag it down, although I could get some mobility, but the most rigid examination failed to disclose any masses in the broad ligament. The patient's abdominal wall was very thin, and some fluid in the peritoneal cavity was perceptible. I could evidently remove the tumor most easily from below, although some operators, perhaps, could have removed it better from above.

The history of the case indicated that the woman had, about six months ago, pelvic peritonitis, and after I saw her, which was about two and one-half weeks prior to the time that she came to me for the operation, going home she had an acute attack engrafted upon chronic pelvic peritonitis. A very considerable amount of fluid escaped from the cavity at the time of the operation, which I have no doubt accumulated during the recent attack, for it had that appearance.

I will not detain you with the description of the operation,

further than to say it was more difficult than usual to deliver from below on account of the practical immobility of the uterus.

I could not bring it down or carry it over, so I went on up on each side of uterus, incising, and securing vessels. I used ligatures on one side, and a ligature and clamp on the other side. A very considerable quantity of fluid escaped, and the small intestines and omentum appeared in the wound. The large intestine, the colon, was adherent to the broad ligament quite firmly, so it was with considerable difficulty I could break it up on the left side. There was also adhesions between the cecum and the broad ligament on the other side. The small intestines were adherent to the upper portion of the uterus above. I separated these adhesions, crowded the omentum and small intestines back into the cavity, and put in iodoform gauze in liberal quantity around the clamp that was in, left the ligatures long, and elevated the patient's hips so she was about on the level. She has made a very nice recovery. At no time has there been more than a degree of temperature, and the pulse was at no time over 100. She did not vomit more than once. The cough, which was so distressing in this case, as in many other cases I have had heretofore of this character, was almost entirely cured by the ether. I have for a long time, instead of being deterred from the use of ether in certain cases of bronchial trouble, rather recognized the ether in these cases as a curative agent. I have also come to the conclusion that ether is less liable to damage the kidneys in these cases than chloroform, and it is infinitely more safe than chloroform; it is eliminated from the system by lungs and kidneys quite as promptly as is chloroform, and the cases do better.

I present the case further in order to show that vaginal hysterectomy can be done in these cases, even where there are extensive adhesions and where you are unable to bring the uterus down before the operation.

The patient recovered rapidly from the general condition, from the state of anemia; cough, and indigestion; for she had for the last year, from time to time, symptoms of ptyalism—that is, she has had the derangement of the digestive apparatus characteristic of ptyalism; from all of which she has recovered and will go home on Monday or Tuesday.

The complete drainage that is secured by operating on these cases from below, the complete access which you can have to all

adhesions with the hand, the absence of hernia after the operation, and the facility with which you can remove all the diseased tissue, are points to which I would call your attention. Of course, I am not now talking about cases where the disease has extended out of the pelvic wall and down below and out beyond the ureters, because I never operate upon cases of that kind. But I am becoming more and more in favor of doing these cases from below where it can be done.

There is one point I will call attention to. I never in these cases stitch the peritoneum to anything. I never stitch the base of the broad ligaments one to the other. You get a completely closed vagina above in every case, if the disease is completely eradicated, if you sew nothing. This method will, I am aware, be pronounced a step backward.

I may state that this case was referred to me by Dr. Smith of Greenfield, O., and I was assisted by Drs. Smith, Gillespie, and the nurses in my hospital. The gauze was removed in seventy hours, and the last suture was away in five days after the operation. If small ligatures are used instead of fewer large ones, including in each but little tissue, then drawn very tightly, they will come away in a short time with very little suppuration. However, I prefer, of course, in ordinary cases to use clamps. By their use much time can be saved, which is an important item.

Liquid Air Cocktails.—We learn from the *Public Health Journal* for August that "liquid air presents surprising possibilities as a medicine. A Russian physician has already begun to experiment with it. He placed a dog in a room with the temperature lowered, as stated in *London Engineering*, to a hundred degrees below zero. After ten hours the dog was taken out alive, and with an enormous appetite. The physician tried the test on himself. After ten hours' confinement in an atmosphere of still, dry cold, his system was intensely stimulated. So much combustion had been required to keep warm that an intense appetite was created. The process was continued on the man and the dog, and both grew speedily fat and vigorous. It was like a visit to a bracing northern climate."

When will liquid air cocktails be available?—*N. Y. Medical Journal*.

BOOK REVIEWS.

Diseases of Women; a Treatise on the Principles and Practice of Gynecology, for Students and Practitioners. By E. C. DUDLEY, A.M., M.D. 8vo., pp. 632. With 422 Illustrations, of which 47 are in Colors, and two Colored Plates. [Philadelphia and New York: Lea Brothers & Co. 1898. Price, cloth, \$5.00 net; leather, \$6.00 net.

It is a real pleasure to read a book intended for students and practitioners, written by an author who has been and still is a good teacher, who has the necessary qualifications to enable him to write a satisfactory work. It is just such an one which we have before us. Instead of giving a compendium of the methods of others, some of which are certainly of doubtful value, the author has taken us into his confidence and has given us those methods which he has found reliable and of value. He has made his subject clear, and has carefully excluded whatever is not founded in pathology or carefully observed clinical material.

The fundamental classification of the book is primarily pathological, and secondarily regional. The former being essentially scientific, and the latter practical. There has been a careful avoidance of what might be termed an alphabetical method, that bane of students and stumbling-block to the acquirement of any subject. Conditions or diseases closely allied, of a necessity are treated together when the basis is pathologic, and a better view of the total process is thus afforded than by treating each one separately, as it often is but a symptom at one time and a disease at another.

The division of the work into its several parts is purely on pathological lines. The work is divided into five parts. Part I. is devoted to general principles, which includes the physiological life of woman, antiseptics and asepsis, diagnosis and the technical details to be observed in operations. Part II. deals with inflammations. These include the inflammatory troubles of the genital canal and its adnexa, as well as urethritis, cystitis, etc. In Part III. we are given a most interesting consideration of Tumors, Tubal Pregnancy, and Malformations. This part is a most interesting as well as valuable one, inasmuch as these troubles form such an important part of the surgeon's work as well as the gynecologist's. Traumatism is considered in Part IV., which includes the important subjects of perineorrhaphy, rupture of the cervix, and allied conditions. Part V., which concludes the work, deals with Displacements of the Uterus and other Pelvic Organs, and Massage. The author is very much in

favor of Brandt's method, and claims results much superior to those obtained by instrumental and medical means. This part is certainly deserving of careful study; as the methods are not only more pleasant to the patient, but also more likely to lead to appreciable benefits and correspondingly more satisfactory to the physician. The author very justly condemns too much instrumentation in this class of diseases.

The book is handsomely gotten up by the publisher. The text is printed by Dornan, who ranks as one of the foremost typographers in this country. The binding is most excellent, the covers having beveled edges. Illustrations are abundant, and there is an unusually large proportion of original pictures. Altogether the book is one of which both the author and the publisher may be justly proud.

A Text-Book Upon the Pathogenic Bacteria. For Students and Practitioners. By JOSEPH MCFARLAND, M.D. Second Edition, Revised and Enlarged. 8vo., pp. 497. With 134 Illustrations. [Philadelphia: W. B. Saunders. 1898. St. Louis: Lewis S. Matthews, 714 Pine St. Price, \$2.50 net.

It is but a little more than two years ago that the first edition of this text-book made its appearance, and so great was its popularity that a second edition was called for and is now offered to students and to the medical profession. This does not surprise us in any way, for the intrinsic merits of the work are such as to recommend it to every medical man. The author has very wisely confined himself to the pathogenic bacteria, and the result has been a book which is not unwieldy and which is withal thorough. That the present edition has been thoroughly revised is evidenced by the text, and that it has been enlarged is shown by the fact that it contains 136 pages more than the first edition.

Among some of the additions may be mentioned a more extended description of the technique, so arranged as to enable the book to be used for a laboratory guide, as well as a descriptive work. This is certainly an improvement in the right direction which will be appreciated. Among the new chapters which have been added are some very important ones, such as those describing the methods of determining the value of antiseptics and germicides, and of determining the thermal death-point. New chapters are to be found dealing with the bacteriology of whooping-cough, mumps, yellow fever, hog cholera, and swine plague. Descriptions of the bacillus *aërogenes capsulatus* and the proteus vulgaris are among the additions, and are not the least interesting. The author has admirably succeeded in his endeavor to bring the work up to the latest advances of the day which rest upon an established basis.

In its present completed condition this text-book will find a ready recommendation at the hands of professors of bacteriology in medical colleges, and will easily recommend itself to those members of the profession who are desirous of obtaining a reliable work dealing more especially with the pathogenic bacteria. The extremely lucid manner in which the text is written, and the clear and demonstrative illustrations which are interspersed, are no small attractions to him who desires to enter the terra incognita of bacteriology, which has so long been made to pose as a scientific bugbear.

We desire to compliment the publisher upon having produced such a handsome work at such a nominal price, and we are sure that his liberality will meet with a fitting reward in the shape of large sales. It would not surprise us in the least to see a third edition called for within the next twelve months. The merits of the book certainly deserve this recognition of their worth.

Ueber Spermatocystitis Gonorrhoeica. Von Dr. WALTER COLLAN. 8vo., pp. 74. Mit einer chromolithographischen und einer Lichtdruck-Tafel. [Hamburg: Leopold Voss, Hohe Bleichen, 34. 1898. Preis, M. 3.50.]

On Gonorrheal Spermatocystitis. By Dr. Walter Collan. 8vo., pp. 74. With one chromolithograph and one artotype plate.

This is a most excellent monograph upon a subject which certainly deserves more than passing attention at the hand of genito-urinary surgeons. Seminal vesiculitis has been latterly treated by the so-called "stripping" method; but, unfortunately, this does not completely empty the seminal vesicle, and when the disease is caused by gonorrhea the gonococci are not all completely gotten rid of by the digital method. The author enters into these and other details, and finally concludes that the only efficient and satisfactory method to pursue is massage of the seminal vesicle by means of Feleki's instrument. Of course, he details the complete technique of the method, and we can heartily commend the booklet to those desirous of learning more on the subject.

The Psychical Correlation of Religious Emotion and Sexual Desire. By JAMES WEIR, JR., M.D. Second Edition. 12mo., pp. 338. [Louisville, Ky.: *Courier-Journal* Job Printing Co. 1897.]

This is a book which cannot fail to interest every physician who reads it. Beginning with a consideration of the origin of religious feeling, the author takes up phallic worship and then enters upon his subject proper, which he handles very well. Following this are some "Psychical Problems" which embrace some eleven essays on such subjects as Viraginity and Effemina-

tion, Borderlands and Crankdom, Genius and Degeneration, Occultism, etc. The author seems to be a disciple of Max Nordau. He gives us an interesting little book, containing much food for thought.

Transactions of the Medical Society of the State of New York. For the Year 1898. 8vo., pp. 512. [Published by the Society. 1898.

As usual, the Transactions come to us well-clothed and replete with good papers. The Medical Society of the State of New York counts among its contributing members some of the brightest and most intelligent representatives of the medical profession of the Empire State. The present is a large volume, which testifies to the industrious character of the members of the society. The Anniversary Address, by Dr. Seneca D. Powell, on the Obligations of the Physician and Layman to Each Other, is a well-considered and temperate consideration of the subject which it would do good to both physicians and laymen to read.

Among the most interesting portions of these transactions are two discussions: one on the Management of Hypertrophy of the Prostate Gland and its Complications, participated in by Drs. L. Bolton Bangs, Willy Meyer, and Lewis Stephen Pilcher; and the other on the Practical Exposition of the X-Rays in Medicine and Surgery, by Drs. Samuel Lloyd, Francis H. Williams, and Arthur L. Fisk. The last is illustrated with a number of skiagrams, Dr. Fisk having exhibited 85 stereopticon views. The last paper deserves more than passing mention. It is by Dr. A. L. Benedict, on Functional Gastric Diseases; their Diagnosis and Treatment. It is a veritable monograph and has the proud distinction of being the Merritt H. Cash Prize Essay for 1896.

The Transactions are well bound and printed as well as edited, and reflect credit upon the Society issuing them.

LITERARY NOTES.

Books Received.—The following books have been received during the past month and are reviewed in the present number of the JOURNAL:

Diseases of Women, a Treatise on the Principles and Practice of Gynecology. For Students and Practitioners. By E. C. Dudley, A.M., M.D. 8vo., pp. 632. With 432 Illustrations, of which 47 are in Colors, and 2 Colored Plates. [Philadelphia and New York: Lea Brothers & Co. 1898. Price, cloth, \$5.00 net; leather, \$6.00 net.

A Text Book Upon the Pathogenic Bacteria. For Students and Practitioners. By Joseph McFarland, M.D. Second Edition, Revised and Enlarged. 8vo., pp. 497. With 134 Illustrations. [Philadelphia: W. B. Saunders. 1898. St. Louis: L. S. Matthews, 714 Pine street. Price, \$2.50 net.

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Ueber Spermatocystitis Gonorrhoea. Von Dr. Walter Collan. 8vo., pp. 74. Mit einer chromo-lithographischen und einer Lichtdruck-Tafel. [Hamburg: Leopold Voss, Hohe Bleichen, 34. 1898. Preis, M.3.50.

Laboratory Directions for Beginners in Bacteriology, by Veranus A. Moore. [Published by the Author. 1898.

The Therapeutic Digest and Formulary made its initial appearance in Kansas City August last. It is a large octavo monthly of 23 pages of reading matter, "devoted to brief therapeutic articles and practical formulas." Dr. J. M. Thompson is the editor and Dr. V. L. Todd assistant editor. The subscription price is \$1.00 per year.

The Psychiater, as its name indicates, is a journal devoted to insanity. It contains a report of the scientific work at the Illinois Eastern Hospital for the Insane, and is published by the medical staff of that institution. It presents the results of clinical observation and investigations in the micro-chemical, pathological and newly added psychological laboratories. It is an octavo quarterly whose first number contains 66 pages of text. The subscription price is \$2.00 per annum.

Laboratory Directions for Beginners in Bacteriology, by Veranus A. Moore, is a most practical and valuable little guide for work. It is essentially practical in character, and everything is made so clear that no student can fail to have success in all his manipulations. The author is Professor of Comparative Pathology and Bacteriology in Cornell University, which alone is a sufficient recommendation for his little book. It may be obtained by addressing him at Ithaca, N. Y. We regret the fact that he did not acquaint us with its selling price.

Announcement.—We feel confident that our readers will be interested in the announcement of the well-known and progressive medical book publisher, Mr. W. B. Saunders, of Philadelphia. He informs us that he visited Germany this summer and

made a contract with the central publisher, agreeing to buy from him one hundred thousand copies of the lithographic plates of his New Series of Hand Atlases (Lehmann's Medicinische Hand-atlantanten). Whilst this seems to be an immense undertaking, the demand which has followed the appearance of those already published justifies it in every respect. An instance of the popularity of these is evidenced by the fact that two editions of Jakobi's Internal Medicines have been sold in less than four months. These atlases are made in the highest style of art, true to nature, and offered at a price which is really of so low a figure that it would seem an impossibility but for the fact that each one appears in nine different languages. Mr. Saunders has had the central publisher to agree to insert, in all new volumes, an additional number of colored plates, and this without increasing the cost of each volume. The advantages of these hand atlases over others hitherto offered to the medical profession is that the execution of the plates is vastly superior, and the price is smaller to a degree which places the volumes within the reach of everyone. The following are in preparation: Atlas of External Diseases of the Eye, by Dr. O. Haab; Atlas of Skin Diseases, by Prof. Dr. Franz Mréiek, and these will be followed by Atlas of Pathological Histology; Atlas of Orthopedic Surgery; Atlas of General Surgery; Atlas of Operative Gynecology; Atlas of Psychiatry, and Atlas of Diseases of the Ear.

On or before October 1 will appear Stengel's Text Book of Pathology, a magnificent work. About October 15 Barton Cooke Hirst's Text Book of Obstetrics, profusely illustrated and containing a series of original illustrations, will appear. These two works will no doubt be the leading text books during the coming season. The American Pocket Medical Dictionary is also announced to appear before October 1, and promises to be most excellent, as it will contain a total of over 26,000 words, or about 5,000 more words than any other pocket dictionary. On or about January 1, 1899, there will be another addition to the well-known and celebrated American Text Book Series. It will be the American Text Book of Diseases of the Eye, Ear, Nose and Throat, edited by Drs. de Schweiniz and Randall. Church and Peterson's Mental and Nervous Diseases will also appear about this time, so that the medical profession can prepare itself for a literary feast provided by this enterprising publisher.

So far as the merit of the hand atlases is concerned there exists no question, and the fact that they can be issued at such a low price, despite the enormous initial cost, is easily explained by the fact that no less than eleven publishers, instead of one, have borne the cost. It is, on this account, that prospective purchasers need feel no hesitation in buying them, as they will have their money's worth many times over.

MELANGE.

Dr. David Clarendon Bryan, as our readers will note in this issue of the JOURNAL, is prepared to offer his services to the medical profession in the capacity of an expert diagnostician. His capabilities in this regard may be easily judged by the fact that he has been an interne in the principal hospitals of London, as well as assistant to some of the best metropolitan specialists. He also walked the leading hospitals of Paris, Berlin, and Vienna, so that he comes among us fully equipped and qualified for his work.

Accuracy in Thyroid Medication.—During the last few years, an increasing amount of attention has been devoted to the use of standardized medicinal preparations and active principles, since it was recognized that by the administration of such preparations only the physician can depend upon uniform and definite results. Wherever possible the custom has grown of using the active principle of a drug instead of the crude material. Hence when thyroid medication assumed a permanent place in the treatment of certain diseases, attempts were made to isolate the active principle. This substance can now be obtained in the form of iodothyryne, which is a triturate of the active principle of the thyroid with sugar of milk. To obtain exact, uniform and safe results from thyroid treatment, iodothyryne will be found far preferable to the thyroid extracts in the market, since, unlike them, it contains no decomposing albuminous material, and the proportion of the active ingredient is unvariable. It has been found to act both promptly and efficiently in cases of obesity, goitre and diseases of the skin, and as the physician has to deal with a substance of definite composition, he is enabled to control its effect so as to avoid any unpleasant or injurious results.

Mississippi Valley Medical Association.—The following is the preliminary programme for the meeting of the Mississippi Valley Medical Association, at Nashville, October 11-14, 1898:

B. Sherwood-Dunn, Boston, Mass., Why I Have Abandoned the General Practice of Vaginal Hysterectomy; J. A. Stucky, Lexington, Ky., Tonsillitis or Quinsy, Causes and Treatment;

H. W. Whitaker, Columbus, O., Pichi; A. Ravogli, Cincinnati, O., A Few Practical Points in the Treatment of Posterior Urethritis; Frank Parsons Norbury, Jacksonville, Ill., The Neuro Hypothesis of Rheumatoid Arthritis; A. M. Osness, Dayton, O., Diphtheria and Its Logical Treatment; F. E. Kelly, La Moille, Ill., Varicocele; F. F. Bryan, Georgetown, Ky., A Plea for Pelvic Peritonitis and Cellulitis; John M. Batten, Pittsburg, Pa., Syphilis; George W. Johnson, Dunning, Ill., Gonangiectomy and Orchidectomy for Hypertrophied Prostate in Old Men; George F. Keiper, Lafayette, Ind., Wounds of the Lachrymal Apparatus, Report of Operation for Restoration of Caniliculi Obliterated by Traumatism; Shelby C. Carson, Greensboro, Ala., A Consideration of the Limlit to Operative Gynecology; W. H. Humiston, Cleveland, O., The Relations of the Gynecologist and the Neurologist; W. Gaston McFadden, Shelbyville, Ind., Intermingling and Changing of Type in Diseases; William F. Barclay, Pittsburg, Pa., Mercury and Its Action; J. Rilus Eastman, Indianapolis, Ind., The Diagnosis of Gonorrhea in Women; S. E. Milliken, Dallas, Tex., Sub-Periosteal Removal of Caries from the Pelvic Basin with the Report of Cases; Thomas Charles Martin, Cleveland, O., Complete Inspection of the Rectum by Means of Newer Mechanical Appliances; George D. Kahlo, Indianapolis, Ind., Hydrotherapy in Stomach Diseases; Alex. C. Wiener, Chicago, Ill., Surgical Treatment of Infantile Paralysis; James M. M. Parrot, Kingston, N. C., Supra-Pubic Cystotomy vs. Perineal Section; R. C. Pratt, McKenzie, Tenn., Report of Cases in Obstetrics with Complications; John L. Jelks, Memphis, Tenn., The Relationship between the Genito-Urinary Tract and Rectum, with special Reference to the Female; T. Virgil Hubbard, Atlanta, Ga., How Should we Treat Typhoid Fever; W. W. Taylor, Memphis, Tenn., A Clinical Contribution to Ectopic Gestation; M. Goltman, Memphis, Tenn., Interesting Surgical Cases; I. N. Love, St. Louis, Mo., The Bicycle from the Medical Standpoint; Joseph Price, Philadelphia, Pa., Surgical Treatment of Pus in the Pelvis; Andrew Timberman, Columbus, O., Operations on the Mastoid, When and How Performed; R. A. Bate, Louisville, Ky., Arthritic Diathesis; Charles W. Aitken, Flemingsburg, Ky., Diagnostic and Therapeutic Uses of Tuberculin; G. W. Halley, Kansas City, Mo., Some Pathological Conditions of the Ovaries and Adnexa Causing Pain.

The above a partial list of the papers promised.

MISCELLANEOUS NOTES.

Dr. David Clarendon Bryan, 814 Chemical Building, Eighth and Olive, respectfully offers his services to the medical profession as an expert diagnostician. Kinloch telephone A457. Hours, 10 to 11:30 A.M.

Sanmetto, Listerine and Chloroform.—Three great blessings to suffering humanity, Sanmetto and Listerine being as great as Chloroform.
H. DRENNAN, M.D., Verdery, S. C.

For Acute Cystitis.—Bromide of Potash, oz $\frac{1}{2}$; fld. ext. gelsemin., gtt. 10; fld. ext. hyoscyam., dr. 2; lithiated hydrangea (Lambert), q. s. ad oz. 4. Mix. A dessertspoonful every four hours. Milk and flax seed tea as drinks.—*Kansas Medical Index.*

Extract Pinus Canadensis in Cystitis.—J. L. Ridley, M.D., Huntsville, Ala., says: I have used S. H. Kennedy's Extract of Pinus Canadensis, both White and Dark. I can frequently cure gonorrhea without any other remedy. I use either as an injection, and prescribe the Dark internally, where there is irritability about the mouth of the bladder. I have learned to regard it as a specific. In chronic cystitis I have derived great benefit from it, and in leucorrhea it relieves when many other remedies fail. It is a valuable remedy, and I have had marked success with it.

Female Weakness.—Without considering the reasons for the great prevalence of vaginal, uterine and ovarian troubles, summed up in the phrase "Female Diseases," the fact cannot be denied that most American women are so afflicted, and every general practitioner, to say nothing of physicians who devote themselves to the treatment of these complaints, will bear witness to the truth of this statement.

In general practice scarcely a day passes in which the physician is not consulted by nervous, hysterical or anemic females seeking relief for conditions superinduced by pelvic disorders. As a usual thing the direct cause is remote, and hence cannot readily be determined by the physician, who is, however, desirous of aiding the patient as promptly as possible.

How to do this without surgical interference, and, in the case of young girls, without submitting them to digital examination, is the problem presented.

We make no exaggerated claims when we state that the concurrent testimony of hundreds of physicians, many of wide experience in this class of ailments, goes to demonstrate that in Ponca Compound (presented only in tablet form) the practitioner has a definite remedy of the most potent and beneficial character, which will produce satisfactory results in all cases amenable to internal treatment.

Acute Inflammation of the Prostate Gland.—*The Journal of the American Medical Association* for August 20th contains a report on inflammation of the prostate gland, which was presented to the Section on Surgery and Anatomy at the Forty-ninth Annual Meeting of the American Medical Association, held at Denver, Colo., June 7-10, 1898, by Liston Homor Montgomery, M.D., of Chicago, Ills. His plan of treatment in acute inflammation of the prostate gland is to wash out the abscess cavity with hydrogen peroxid, give copious hot water enema and hot hip baths frequently; avoid morphine internally, and advise carelest the patient strain at stool or during micturition. On the theory that toxins are retained in the circulation and within the gland, and to prevent degeneration in the gland substance, he administers triticum repens or fluid extract tritipalm freely, combined with gum arabic or flaxseed infusion. along with these remedies the mineral waters, particularly vichy with citrate of potash, go well together. Hydrate of chloral or this salt combined with Antikamnia are the very best anodyne remedies to control pain and spasms of the neck of the bladder. These pharmacologic or medicinal remedies are the most logical to use in his judgment, while externally, applications of an inunction of 10 or 20 per cent. Iodoform, lanoline, as well as of Mercury, are also of value.

Blennostasine in Hay Fever.—The drying effect of Blennostasine is most remarkable, and renders it of great value in the treatment of hay fever. Many remedies may benefit this affection. but the most uniform and decided results are obtained from the use of Blennostasine. Its influence on the vaso-motor system is in many cases remarkable. It produces a dryness of the naso-pharyngeal membrane almost equal to the effect of belladonna, and has the additional advantage of being non-toxic. When possible, treatment should be commenced ten days before the usual date of attack, with 5-grain doses of Blennostasine three times a day. On the day preceding the usual date of attack 20 grains should be administered, and the dose increased 10 grains daily until the symptoms are controlled. If the attack does not appear, or is controlled, the dose should be gradually diminished. If the patient is not seen until the attack has begun, full doses (5 grains) of Blennostasine should be given, and increased as required.

Campho-Phénique in Leucorrhea.—Extract from a lecture on Antiseptics, at the Post Graduate School, New York, by Dr. Robert T. Morris: "In certain forms of leucorrhea, dependent upon catarrh of the mucous membrane of the uterine canal, Campho-Phénique is a very satisfactory drug for local application after the cervical canal has been dilated in order to allow of easy access to the interior of the uterus. In connection with other appropriate treatment, the local application of Campho-Phénique is readily responded to by the deep-seated cervical glands, in many cases in which response cannot be easily obtained by the use of the orthodox remedies described in the text books."

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ORIGINAL COMMUNICATIONS.

**A BRIEF CONSIDERATION ON THE SHOULDER-
GIRDLE, ITS STRUCTURE AND LESIONS
RESULTING FROM VIOLENCE.**

BY THOMAS H. MANLEY, M.D., NEW YORK.

By far the greater number of severe injuries sustained at the shoulder are within those areas included by the shoulder-girdle. The anatomical limits of this have been variously defined, although, for practical purposes, it may be described as included or in proximate contact with a circumferential line, passing under the axilla, upward and forward over the acromial third of the clavicle, across the summit of the shoulder, the neck of the scapula, and backward over the root of the acromion process. This somewhat ovoid circle embraces two articulations and three bones, two bursæ, the main vascular supply of the shoulder and all of the arm, the brachial-plexus, all the muscles acting on the arm, and those passing below from the scapula to the fore-arm.

Within this radius is that singularly complex anatomical mechanism which imparts to the shoulder, prominence, with its powerful and diverse action.

For a long time, taken as a whole, authors in both anatomy and surgery have designated this the "shoulder-joint;" and, it is most extraordinary to note, that even in our own days of iconoclasm and scientific precision, our latest and most distinguished writers persist in severely employing an effete and vic-

ious nomenclature, and without exception yet continue, when considering the structures and lesions involving that bone which unites the upper extremity with the trunk, as "the shoulder-joint." The average graduate passes out of the portals of his alma-mater fairly acquainted with the signs and symptoms of fractures and dislocations of the "shoulder-joint;" but if he were required to describe in detail some few of the more common morbid states of the *three shoulder-joints*, he would be completely bewildered. But scientific accuracy requires exact definitions, and moreover, the customary usage of the former terms has led to mischief and confusion, for the reason, particularly, that luxations of the acromion and of the clavicle have often been overlooked — one's attention being concentrated on the humeroscapular articulation exclusively. My own experience has long since convinced me that revision in the nomenclature of shoulder injuries was necessary; and, now, that no author has ventured to call attention to its necessity and importance, the writer embraces the opportunity of undertaking it.

THE SHOULDER-GIRDLE.—In order that we may have a correct understanding of what is understood by the above term, some description of the topographical areas and anatomical areas included within or circumjacent to it should be described:

If we take a cord and carry it through the axillary space, up and forward over the great pectoral, over the outer parts of the clavicle, across the trapezius and root of the acromion process, downward to the lower parts of the deltoid, we have the circumferential line in question defined. Within its areas we will find almost all of the more important anatomical structures involved in sprains, luxations, fractures, or other pathologic states encountered at the shoulder. The structures within the areas of the shoulder-girdle are worthy of special study, inasmuch as they are frequently subjected to the effects of great violence, the results of which may entail great difficulty in diagnosis, and, if recognized, effective treatment sometimes is unsatisfactory or even impossible.

As the more common traumatisms at the shoulder-girdle involve the muscles, bones and articulations, it becomes necessary to consider these *seriatim*.

The Muscles.—The greater part of the shoulder prominence is composed of muscular tissue. Powerful muscles tie the scapula

to the trunk and the humerus to the scapula. The volume of muscle uniting the arm with the shoulder is greater than that which connects the shoulder with the body, although this bond is stronger in consequence of the greater proportion of fibrous structure in the sheath and substance of the trapezius and its extensive area of attachment to the scapula and clavicle. In avulsion of the arm from the body the parts give way, usually below the insertion of the deltoid.

In the case of a young woman who came under my care in the Harlem Hospital, although the humerus was badly shattered, the soft parts gave way at about the junction of the upper and middle thirds of the humerus. In this case, although the arm was torn from the body in an instant, the deltoid held the humeral head securely in the glenoid cavity.

The *deltoid*, of all the muscles in the shoulder-girdle, is of the greatest surgical importance. This is the mantle-muscle of the shoulder—of a ponderous development, an extensive origin, a mixed composition, forming close associations and incorporated with other muscles at the humero-scapular articulation. It may be regarded as possessing more resistance than all the other muscles collectively which pass from the scapula to the arm and forearm. Physiologically of interest as providing shelter and protection to the humeral heads. It is most complex in function. Above its acromian segment at its tendinous origin by freely blending with the capsule it contributes greatly to its strength. Generally, the lower and innermost fibres of its posterior spinous portion blend with those of the outer short-head of the triceps, and sometimes with the upper border of the tendon of the latissimus-dorsi. Its three separate divisions—the spinous or posterior, the acromian or outer, and the clavicular or inner—limit and restrict the movements of the articular surface of the humerus.

Anteriorly, the clavicular head of the deltoid overlaps the broad tendon of the great pectoral, the coraco-brachialis, the short head of the biceps, the subscapularis, and the coraco-acromial arch. This part of the muscle on its inner aspect fuses with those of the clavicular-portion of the great pectoral. This portion of the muscle contributes, in a large measure, towards supporting the anterior surface of the humeral head and preventing an upward or forward displacement. This muscle has a

broad origin from the whole anterior and upper surface of the outer third of the clavicle, about the same extent forward that the trapezius has posteriorly; both muscles being so firmly attached here that in the event of fracture extensive displacement is quite impossible.

The posterior or spinous head of the deltoid is the broadest. It passes down over the infra-spinatus and teres minor, the latissimus-dorsi, the teres major, the long and external heads of the triceps.

Over the humeral head and contiguous, underlying parts, and down over the upper fifth of the humeral shaft, the under surface of the muscle rests on a thin, loose layer of elastic, areolar tissue. Its grip into the humeral shaft is through a broad, thick tendon extending below the upper third of the humeral shaft into the anterior surface, where the broad brachialis anticus begins.

There are four muscles passing from the scapula to the external humeral head—the teres minor, the infra and supra-spinatus, and subscapularis. These are all rotators, the subscapularis, by all odds, the most important. This muscle provides the floor on which all the axillary blood-trunks and cords of the brachial plexus rest. It also provides the barrier which secures these structures against violence when the humeral head is driven forward out of its socket. It contributes powerfully to the support of the humeral head anteriorly, and greatly strengthens the capsule when the arm is rotated outwards. Apart, the lesser of its insertions is into the lesser tuberosity, the greater being incorporated with the thick, lax capsula of the humero-scapular articulation.

There are five muscles acting directly and indirectly on the upper part of the arm, in close relation to the shoulder-girdle, and concerned in all shoulder movements. Two of these have each segments passing down over and under the internal humeral head to act on the forearm. These muscles, though ultimately acting on the forearm, constitute an important part of the humero-scapular articulation. The long bicipital tendon, from its position and strength, serves as a powerful ligament in limiting the movements of the articular head of the humerus forward.

The short or coracoid head of the biceps, the coraco-brachialis

and pectoralis minor, are integral and important parts of the coraco-acromial arch. The external or descending segment of the pectoralis major, like the deltoid and coraco-brachialis, tends to draw the humeral head upward into the glenoid cavity.

The thick, tendinous origins of the coraco-brachialis and biceps pass down over the broad tendon of the subscapularis, keeping it closely applied to the bone and simultaneously serving to limit the movements of the humeral head forward. Immediately over these two muscular heads passes the broad, strong tendon of the pectoralis major, which has a broad insertion into the outer edge of the bicipital groove.

The triceps muscle acts on the arm and forearm, and ranks second with the deltoid in volume and as a tractor on the humerus. It forms the outer boundary of the axillary hollow and the muscular basic support of the humeral head. At its origin this muscle is broad and dense, its fibres freely blending with the inferior surface of the capsule, from the lower aspect of the glenoid cavity, outward and forward to the anatomical neck of the humerus. The posterior form and strength of the brachial head of the triceps is what renders a direct downward dislocation of the humerus quite impossible, and, besides, contributes towards so concealing the articular head that it can only be palpated underneath through its articular substance on the under surface.

The head of the humerus, with the arm in a supine position, is everywhere overlapped by muscles when it is not protected by bone. The most exposed site is on its inner aspect at the lower border of the tendon of the subscapularis, and the anterior border of the long head of the triceps. This is most evident when the arm is rotated slightly inward. At this point, and only here, can the femoral head escape through the capsule in dislocations downward or forward.

The trapezius plays an important rôle in many lesions involving the shoulder-girdle. It is commonly classed by some anatomists as a rotator of the scapula (Heitzman), but its functions are involved in many other movements than rotation of the shoulder. It has a more extensive origin than any other muscle in the body, and is the principal one connecting the shoulder with the trunk. In severe injury or paralysis of the upper segment of this muscle, the whole shoulder is displaced downward. From its insertions into the outer extremity of the clavicle and

the inner border of the acromian process, it contributes towards clavicular scapular action, and, hence, is specially concerned in various luxations and fractures of these parts.

The osseous and arthritic structures within the shoulder-girdle may be considered together, as both structures are so intimately connected in function. The osseous structures deserve special study because of their frequent disorganization after the application of great violence here.

RECAPITULATION.

The important facts bearing on the anatomy of the shoulder are:

1st. That this suspended appendage of the trunk, in man, serves an important purpose by affording shelter and protection to the lateral walls of the thorax.

2d. By its projecting position, its development and mobility it serves as a defensive barrier to the thorax, the spine and cranium.

3d. As the base and root of the upper extremity it is concerned in apprehension.

4th. Of the osseous frame-work the scapula is the only essential bone, and this serves for no other indispensable purpose than for the leverage of muscles.

5th. There is no mortised joint of any kind at the shoulder, and, hence, the integrity of the three articulations depend, fundamentally, upon muscular action.

6th. The scapular apophyses contribute to the formation and support of two articulations.

7th. The collar-bone contributes to *form* and not to the mobility or strength of the shoulder.

8th. It should not be forgotten that there are *two* heads on the scapular extremity of the humerus: the internal or articular, deeply lodged, completely concealed, and *everywhere* invested by muscles; the large tuberos apophysis—the greater tuberosity—just external to the anatomical wall, commonly designated “the head” of the humerus, is the *external* head proper.

9th. All three shoulder articulations are atypical in construction and composition: the costo-scapular being devoid of either capsule or ligaments; the humero-scapular being exclusively a muscular joint; and the acromio-clavicular, though dependent

entirely on muscles for collateral support, is immediately secured by ligaments and fascia alone.

10th. The shoulder being swung from the vertebral column, and entirely suspended in man, has an extensive muscular support from behind. The trapezius is the most important in holding the shoulder up and fixing it firmly against the thorax. The latissimus dorsi and pectoralis muscles indirectly act on the thorax. If we now exclude those muscles passing down from the scapula to the forearm, the only one of supreme importance at the shoulder is the deltoid. This large and powerful muscle, in all movements at the humero-scapular joint, occupies a front rank. This muscle by itself securely maintains the articular head of the humerus in position; therefore, any lesion impairing its integrity must involve this joint.

11th. Nowhere in the body will be found large blood-trunks lying so near the surface as in the axillary space; and, it is interesting to note in this connection, that, though the large veins are exposed, various of them are never observed here. The axillary trunks being separated from the internal humeral head by the tendon on the supra-scapularis, they escape injury in all ordinary dislocations.

12th. The capsule of the humero-scapular joint is noteworthy, because of its density, capacity, and elasticity.

13th. The brachial plexus of nerves is remarkable for the free admixture and density of the fibrous structure so freely blended with the neural elements. Except those branches given off from the posterior cord, there are no important nerves exposed to serious damage from ordinary injuries about the shoulder.

14th. The bursal sacculations under the acromian process and the subscapularis, are important parts, because of their participation in those contusive or elastic lesions succeeding violent twists or wrenches of the humeral lever.

15th. The integument, as it extends forward over the shoulder, is freely movable until prominence of the acromian process is reached. At this point, over a broad space, it becomes intimately adherent with the thick, dense fascia in this situation. In the axillary space the integument, though freely movable, is exceedingly thin.

OCCASIONAL PERISCOPE OF ANTENATAL PATHOLOGY.

BY J. W. BALLANTYNE, M.D., F.R.C.P.E., EDINBURGH, SCOTLAND.

Ovarian Cyst in a New-Born Infant.—G. Durante (*Bull. Soc. Anat. de Paris*, No. 12, June, 1898) has observed an ovarian cyst, apparently of the nature of an ovisac on the point of rupture, in an infant that died eight days after birth with symptoms of intestinal and hepatic disorder. The tumor was rounded, soft, incompletely fluctuating, and dark in color. It was of the size of a large nut and was attached to the upper border of the right broad ligament. The inner end of the ovary was applied to its surface, becoming continuous with it. Durante asked himself whether this was a true ovarian cyst, a real congenital tumor, or rather simply a large ovisac, congested and about to rupture in a manner like that seen in menstruation. The microscopic examination of the tumor inclined him to the latter view. The contents were simply red blood clot. The wall was made up of true ovarian tissue, containing ovules in different stages of evolution and more numerous near the attachment of the tumor to the ovary than over its free surface. Some were perfectly formed, others especially near the surface were still united together, indicating the last traces of Pflüger's tubes. The cyst had no epithelial lining but its connective tissue cells were seen insinuating themselves into the blood clot, which was therefore in process of being organized. Durante intends making serial sections of the contents of the cyst in order to discover whether any trace of an ovum is present. In the meantime he regards it as probable that it was an ovisac on the point of rupture due to an ovarian congestion of a menstrual kind. [Unfortunately Durante gives no information with regard to the existence of any vaginal red discharge in this infant. It is well known that new-born infants occasionally show this sort of menstrual discharge, and cases like the above would support the view that it is truly ovarian (or menstrual) in character.—J. W. B.].

Hypertrichosis and a Uterus Duplex.—A. Hegar (*Beitr. z. Geburtsh. u. Gynæk.*, Band I, p. III, 1898) puts on record a case of abnormal hairiness in a girl, 16½ years of age. Her parents were not specially hirsute, but one brother was. The condition had existed since infancy, but the girl had enjoyed good health till fourteen, when she became anemic. Menstruation began at 14½, and was small in amount and irregular in

type. Her teeth were good, but the breasts were poorly developed. The hair of the head was plentiful, and the eyebrows joined over the nose. There was down on the upper lip and marked whiskers. The whole of the anterior surface of the throat and abdomen was covered with fine dark hair from 15 to 20 mms. in length; these were directed towards the sternum and at the sides towards the spine. The mons was strongly hairy, and hair was also present in the linea alba arranged according to the male type. The back was not so hairy, neither were the arms; but the thighs, especially their posterior aspect, were very hirsute. The hairs were lanugo-like in character, but darker in color. The pelvis was of the infantile type, the pubic arch was narrow, and high, and there was a slight lordosis in the lumbar region. There were symptoms of pelvic mischief, and on examination, the diagnosis of hematometra in a uterus duplex was made. An operation was undertaken per vaginam and blood clot was cleared out, but recovery was interfered with by suppuration, an abscess forming and opening into the bladder. Hegar regards the hypertrichosis and the uterine malformation as having a common origin; they were both manifestations of fetalism, and were associated with an infantile state of the pelvis and undeveloped mammary glands.

Uterus Bipartitus as the Cause of an Error in Diagnosis.

—Blondel (*Ann. de Gynéc.*, August, 1898) during the curettage of a uterus for menorrhagia and purulent discharge was startled to find that the curette had apparently penetrated the uterine wall. The curetting was stopped for the time, but no bad results followed, and five months later, the uterine symptoms still continuing, the operation was repeated. Again it seemed as if the curette had caused but perforation; but dilatation of the uterus showed that the organ was bipartite and that the curette had only passed from the one cavity into the other. The curetting of the second cavity was completed, and the patient was entirely relieved of her pelvic trouble.

A Persistent Hymen Causes an Error in Diagnosis.—

D. Albespy (*La Gynécologie*, August 15, 1898) was called by a midwife to a labor case in which it was stated that the uterus was prolapsed and the cervix presenting at the vulva. The patient was a primipara of 23 years, who had menstruated regularly since 18, and had had an uneventful pregnancy. Albespy

found on his arrival that the supposed cervix uteri was really the dilated orifice of the urethra and that the vulva was entirely closed by a membrane, the persistent fleshy hymen. Careful examination revealed a small aperture in the upper half of the hymen and in the middle line, and through this opening liquor amnii was escaping. The vulva was carefully cleansed and treated antiseptically, and the hymen, measuring $\frac{1}{2}$ cm. in thickness, was excised. The patient was soon afterwards safely delivered of a healthy infant. The patient stated that she had only had a most imperfect form of coitus with her lover on one occasion.

Tubal Malformations as a Cause of Extrauterine Pregnancy. F. Henrotin and M. Herzog (*Revue de gynécologie*, July-August, 1898) have met with two cases in which ectopic pregnancy was the result of a malformation of the Fallopian tube. In the first instance the abdomen was opened for symptoms of tubal rupture. The right appendages were removed, and it was seen that the tube had an accessory ostium on its upper and outer end, while below there was really a small accessory tube with a complete ostium abdominale. In the latter structure was an unruptured sac containing blood clot, decidual cells, and chorionic villi, but no trace of an embryo. The uterus was curetted at the same time, but the scrapings showed no decidual cells, simply the structure of the normal uterine mucosa. In the second case the uterus and appendages were removed for long-continued pelvic symptoms. From the right Fallopian tube near its middle a diverticulum projected towards the side of the uterus, and in this diverticulum were blood clot, chorionic villi, and decidual cells, but no embryo. In both instances the authors regarded the condition as an ectopic gestation in a malformed and congenital Fallopian tube diverticulum. The absence of an embryo was not in itself considered as militating against this view.

[*Note.*—In this periscope I have selected four abstracts in each of which an antenatal pathological state was the cause of unexpected developments many years after birth. This projection of fetal states into adult life is one proof, amongst many, of the real practical bearing and importance of the study of antenatal pathology].

THE INTERDEPENDENCE OF HEALTHY BODIES AND HEALTHY BRAINS.*

BY ELMER LEE, A.M., M.D., PH.D., NEW YORK.

Physical beauty and intellectual perfection are the ideals of all that is deemed highest in human ethics. Few, indeed, attain the satisfaction of touching this tableland of human development. Fewer still, either through the warp of the intellect or the decay of the body, experience the reward of right living ere the long night of death settles upon them. Many lives are blighted early and fail consequently to reach physical grace or mature intellection. The sprig under favoring conditions may tower to majestic proportions, while under stunted growth it may get no higher than a shrub. Childhood may ripen into manhood possessed of strength of body and mind, or a defect in coördination during growth may produce a monster with great muscles supported by an insignificant brain.

There is one law for the body with all that it contains, and in health, if nutrition is provided for the tissues of which it is composed, exactly in accordance with its needs, proper growth ensues. Such orderly development prepares a sound brain to coöperate with a healthy body. The early years of child-development yield easily to warping influences, necessitating the greatest consideration and prudence, else in maturity disappointment and suffering are the measure of weal and woe. Starting with perfect organization, the child, if rightly used, grows uniformly in every organ or part of the body in physiologic direction and proportion.

Life processes include four departments in man—sensibility, instinct, sensation, and contractility. The first relates to mind, and is that which fixes man's supremacy over the animal kingdom. Instinct presides over the functions of organic structure and growth, and acts independently of intellection. It is engaged in selecting and arranging material for the physical welfare of the bodily tissues, being alike common to man and animal, and never ceasing in its influence till silenced by death itself. Sensation is a property of the animal which aids in its own protection and augments its comfort and happiness through contact relations with the environing world. Contraction is

*Read before the American Academy of Medicine, Denver, June 6, 1898.

purely a mechanical exhibition of inherent force residing in bodily tissue structures.

Man alone has sensibility which is the highest brain function. The expansion of the capacity to originate ideas and comprehend the sublimity of the universe requires a cultivation of the power of mind through the operation of thought, a kind of calisthenics applicable to healthy brains. Through his senses he has pleasurable existence, and it is deep and broad in proportion to their development. One would think that the capacity to enjoy life would be sufficient incentive to work for such development. The lesson is clear: if we want anything, we must work for it; if we will not work, we lose that which we have. But, unfortunately, man dislikes work; not realizing it is that which proves his greatest pleasure.

Exercise can justly be said to be the keystone of bodily health, and indispensable as it is to a right appreciation of the blessings connected with the act of living, it is either grossly abused at times or quite neglected by a large proportion of every community. Whatever there is that lives, owes its continuance to a renewal of substance and a pure health, rests directly upon active disintegration and equal substitution in new material. The interchange between the new and the old tissue needs the quickening influence of motion exerted from without to increase the essential activity within. The day with its four quarters is a complete world in itself and is to be lived faithfully and completely, and all accounts balanced ere entering upon the new life of the morrow.

It is destructive to the health interests of the body to carry over unsettled accounts to the books of the new day; each day being a little life, should properly dispose of its responsibilities ready to enter the service of the new without any part of the burden of the old load of the yesterday. By this is meant that every part of the body needs the regular and unremitting benefit of daily exercise for all its organs, physical and mental. It is the continued and orderly exercise of organs or parts that gives them increased capacity for work and for health. A great deal to-day and none to-morrow will not suffice to maintain the quality of vigor which brings the reward of satisfaction. Nature is generous and friendly, but the inevitable penalty for neglect to righteously preserve inviolate the integrity of the bodily

trust, is sickness sooner or later, exactly in proportion to the breach.

It is not for children that exercise is particularly urged in definite, prescribed form, for the natural impulse of the young suggests the required amount. The child is in danger by overdoing, while the adult, occupied with business and pleasure, postpones his physical recreation from time to time, finally nearly or quite omitting it altogether. Failure to take daily exercise is a common mistake, and a chief factor of disease.

Bodily exercise for fifteen minutes three times a day, using such movements as naturally suggest themselves, so long as the movements include all the muscles, regularly performed, will suffice. A part of the body may suffer from non-use, impairment of the circulation and congestion, and from daily repetitions of small errors such as this, foci are established and these are the beginnings which lead toward organic injury and disease.

Of equal importance to proper and sufficient exercise for the body, is that of a consistent and adequate supply of suitable food. There is no one matter so directly concerned in self-preservation as that which deals with the problem of alimentation. When, what, and how to eat enters into the whole existence from cradle to grave; but notwithstanding the oft-repeated practice of feeding, that knowledge which makes of this necessity both a pleasure and a blessing is yet, with certain exceptions, to be acquired by laity and profession. In the natural state, food might be eaten whenever hunger suggested, and it would be right, but no civilized race of men to-day is living as did its prehistoric ancestors. Hence, such a rule would be both incompatible with health conditions of this day as well as highly inconvenient to the habits of society. There are advocates of the plan just suggested, but it strikes me that it is too impracticable to consider seriously. The prevailing plan of three meals per day as taken in America is objectionable, since it implies necessarily more food than is needed and more than can be safely introduced into the system habitually, without injurious consequences. My observations have gone sufficiently far to establish satisfactorily that the element of predominance in the causation of disease is closely associated with the excess of food which is consumed daily by nearly all ranks of society. That is, in excess of the bodily need or the strength of the individual to digest and

appropriate, judged by the work performed by an average man or woman.

Three light meals a day would suffice in any case, even for those engaged in the heaviest outdoor labor from morning till night. For the sedentary and professional classes, either three light meals, or two meals, noon and evening, with little, if any, breakfast. Or a moderate breakfast, and dinner in the evening, with a sandwich, a glass of milk, or some fruit, added for a lunch. The point is only to eat according to the actual requirement of the body, and habit has a great deal to do with it, as any one can demonstrate if he would but make the test. Too much eating is a bad habit of nearly world-wide extent.

Clinical and other experience indicates that all classes of food material rightly prepared and taken in moderation are safe and satisfactory, if relished and eaten slowly with thorough mastication. The principal danger, in my estimation, lies in the fact that too large a quantity is indigested, to the detriment of the supposedly well and to the direct injury of the sick.

The mind appears to be independent in many instances of either the health of the body or the brain, but, strictly speaking, this is not true, even though it be the intellect of a Milton or a Dante, both of whom enjoyed great capacity for mental action, and each had a large share of bodily ill health. But the intellect, since it represents the training of the functions of the brain, may produce mental results immeasurably superior to the standard of general bodily health, although it would be reasonable to expect better things from the development of a functionally healthy brain, however brilliant might be the success of a given one not physically sound. And inasmuch as the processes of physical life are under the control of the instinct, a department of the brain and other nervous centers not necessarily connected or dependent upon intellectuality of mind, it follows that the functions may be kept healthy by instinct and the brain active by reason of a sound body, while the mind be even undeveloped as in certain acephali and idiots.

That happy coördination which renders it possible to live intelligently, pleasantly, and usefully in this world, needs a healthy unit, which is, in fact, a healthy body trained and developed to its highest limitations, including the sensibility or intellect, as well as cultivation of a harmonious and sound constitution. This

is attainable by hygienic exercise, frugality, temperance, moderation in eating, all depending upon the health of childhood and adolescence for the basis of a perfect manhood. When moderation is exceeded, a forfeit is the law of the universe; each is recorded with such exactitude that none are missed, and the final forfeit is life itself, which is all too frequently a call for some lovable character, long before the natural limitation is reached, but nevertheless forced to yield his life to pay the penalty demanded by the vigilance of an eternal law.

10 West Forty-ninth street.

The American Microscopical Society, at its recent annual session, elected the following officers for the ensuing year: President, Dr. William C. Krauss of Buffalo; first vice-president, Professor A. M. Bleile of Columbus, Ohio; second vice-president, Dr. G. C. Huber of Ann Arbor, Mich.; secretary, Professor Henry D. Ward of Lincoln, Neb.; treasurer, Magnus Pfau of Pittsburg; executive committee, Professor S. H. Gage of Ithaca, Dr. A. Clifford Mercer of Syracuse, and Dr. V. A. Moore of Ithaca.

Anger is an Unreality of War, Says Captain Lee of the Royal Artillery.—Often during the day the well-known expression, "A shot fired in anger," recurred to my mind, and it seemed strangely inapposite. I saw many thousand shots fired during the campaign, but not one "in anger." Most men were anxious, many were excited, and not a few afraid; but however hard the fight, or however great the losses, they never seemed to be angry—that is, with the enemy—even when their best friends were killed. Anger, in the popular sense, is one of the unrealities of war.—From "The Regulars at El Caney, by CAPT. A. H. LEE, R. A., British Naval Attaché, in the October *Scribner's*.

CORRESPONDENCE.

THE SERO-THERAPEUTIC METHOD OF DR. CARRASQUILLA IN THE TREATMENT OF LEPROSY.

NEW YORK, October 5, 1898.

Editor of ST. LOUIS MEDICAL AND SURGICAL JOURNAL:

Sir—I send you what we may consider as the knell of the serum treatment of Carrasquilla. Dr. Polakowsky is what the Germans call an Americanist; that is, he knows about everything that happens and has happened in our two continents. He is an authority.

Yours truly,

ALBERT S. ASHMEAD.

Reprinted from the *Deutschen Medicinischen Wochenschrift*, 1898, No. 31.

“In Nos. 40 and 41, of the year 1897, of this weekly, I have reported as to the present state of leprosy in Colombia, and given an abstract of those numbers of the *Revista Medica Bogota* which treat of the new method of dealing with leprosy which has been invented by Prof. Dr. J. Carrasquilla. On page 663 it is said that the Academy of Medicine in Bogota, at the wish of the minister, has appointed a commission which was to treat a number of lepers according to the method of Dr. Carrasquilla, and report the result of the use of the serum.

“In No. 224 of said *Revista*, December, 1897, I find the report of the above-named commission, which got only into my hands in May of this year. The author of it is Dr. Maurique. The conclusions are as follows:

“The treatment of tuberculous leprosy through the animal serum of Dr. Carrasquilla, which he has pursued himself for nine months, with the 12 patients submitted to our studies, has changed the disease neither in its symptoms nor in its clinical development. The time of the observation and treatment of the twelve patients is sufficient to invalidate the value of the conclusions which have been communicated to the Academy by Dr. Carrasquilla. The theses of Dr. Carrasquilla were based upon observations which had not quite lasted two months. The bacillus of Hansen, which we have prepared out of the ulcers of the twelve isolated patients, undergoes no change, neither in its

form nor its number, nor in the manner of its grouping, after nine months of continual use of Dr. Carrasquilla's serum. The use of Carrasquilla's serum, with all the precautions of asepsis and antiseptis recommended by modern science, and in a maximum dose up to 20 c.cm., produces no weighty cases, and offer only the variable reactions, according to the individuals, which result from the injections of any organic serum, for instance from the pure serum of the horse.

"I have in the above sentences given more importance to literal rendering than to elegant translation. Mr. Dr. Maurique adds to this annihilating thesis only the following words: 'Our clinical conclusions had to be simple as truth, impartial like science, the logical results of a thorough observation, and we have omitted nothing to avoid a mistake.'

"These conclusions, the answer of the Academy to the minister's questions, were unanimously adopted and transmitted to him. What role Mr. Carrasquilla has played in the lepra conference, and in what manner these defeated his so-called cure, may be seen in the communications and translations of the said conference. The government of Colombia, which believed the assurances of Dr. Carrasquilla, granted him for his journey to Berlin 5,000 pesos of gold (*Diario Oficial*, Bogota, 17 Sept., 1897), in order that he might present his method to the conference, and that he might receive advice from the assembled authorities for the struggle against leprosy in his own country. Some other experiments which had been made in other parts of America with Dr. Carrasquilla's serum have been recorded by Mr. Dr. Albert S. Ashmead, in New York, in the number of March, 1897, of the *New Orleans Medical and Surgical Journal*. (Note: In the *St. Petersburg Medical Weekly*, Nos. 27 and 28, Prof. Desbio publishes complete negative results of his treatment with the Carrasquilla serum).

"DR. H. POLAKOWSKY.
(Berlin)."

Merited Honors.—The University of Michigan has made Dr. A. Jacobi, of New York, a LL.D. The University of Edinburgh on July 30 conferred the same degree upon Drs. Henry P. Bowditch, of Boston, William Osler, of Baltimore, and Roddick, of Montreal. The last named was President of the British Medical Association which met during the summer of last year; the other two were delegates in attendance.

ST. LOUIS

Medical and Surgical Journal.

A. H. OHMANN-DUMESNIL, A.M., M.D.,

Editor and Proprietor.

No. 5 SOUTH BROADWAY, ST. LOUIS, MO., U. S. A.

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EDITORIAL.

THE MEDICAL POINT OF VIEW.

Judging from the present outlook, and considering the prospects for the future, it would seem that there exists but little encouragement for the rank and file of the medical profession. It is not so much dependent upon the overcrowding in the ranks of physicians as it is in a lack of crowding on the part of patients. That patients have not diminished in numbers is patent to any observer; and that modern medicine has arrived to that point that such a diminution in patients should occur is also not a fact. There is some other reason for this state of affairs, and it is to that which we must look.

The fact of the whole matter seems to be that general business depression and the precarious tenures of workmen on their occupations have made money tight, as the commercial expression has it. Another condition is produced by the unwillingness of capital to invest; and, naturally, enterprises lag and the workshops occupy but few artisans. This will readily explain why workmen and their families go to clinics, which are free, and

in which the best talent may be found. The fact is, it is not one confined to those who take the benefit of such institutions; and, as a result, many who are well able to pay, but who are thrifty, take advantage of the opportunity of evading a physician's fee, and thus aid in the grand work of building up clinics, at the expense of the practitioner who is endeavoring to earn a living by the legitimate practice of medicine.

The picture is by no means overdrawn. This condition has been foreseen long ago, and college clinics have driven many members of the profession to have their individual clinics, at which medical services and medicines are provided at such rates that hardly a bare living is the result of a large amount of labor. Those who are unable to earn a good living in the ordinary method are forced to resort to these devices, and, as a natural consequence, the body medical in general is harmed.

Such is the point of view offered to the profession to-day. Such is the encouragement given to those who resolve to follow the straight and honorable path which has been always considered so essential to the proper pursuit of a medical career. It is certainly far from encouraging, and yet there are experienced practitioners who will encourage young men to enter into the study of medicine, and hold out such prospects as they fully know can never be realized. The glamour of being a doctor is so great that it dazzles the aspirant to that honor, and but too often ends in dismal and disheartening failure in the one who is possessed of high moral principles; or it leads to the increase in the number of ignorant and unscrupulous charlatans who prey upon a gullible public.

As things look at present, the medical point of view is anything but encouraging. It seems to present naught but a gloomy side; and yet, like every dark cloud, it may have a silver lining, which will show itself in the form of higher medical education, more strict requirements, and fewer medical colleges.

THE DEADLY PARALLEL COLUMN.

It has been well said that our mistakes, like chickens, come home to roost. There is no such welcome, however, in many cases. A glaring example of what we are inclined to regard as a little more than a mistake appears in the September, 1898, issue of *Therapeutic Notes*. We quote from that publication:

A PERVERSION OF THE TRUTH.

THE DEADLY PARALLEL EXPOSES AN ACT UNWORTHY OF A
RESPECTABLE MANUFACTURER.

The Statement sent out to the Medical Profession and Drug Trade by the H. K. Mulford Co., of Philadelphia.

CALIFORNIA STATE BOARD
OF HEALTH.

The antitoxin used in California is made in this country; and after considerable investigation and trials of the German and French preparations we are giving our preference to the American production. . . . The antitoxin now used by the Board is that of H. K. Mulford Company, Philadelphia, Pa. The American product is put up in better form for transportation and handling, which is of itself an important item. The Concentrated "Extra Potent" (500 units to each c. c.) is the best.—J. H. DAVISSON, Los Angeles, Secretary California State Board of Health, in Report on Diphtheria Antitoxin.

*Statement as it Actually Appeared in "Report on Diphtheria Antitoxine," by the then President of the California State Board of Health.**

Most of the antitoxine used in California is made in this country; and after considerable investigation and trials of the German and French preparation, we are giving our preference to the American production; and most of the antitoxine used by the Board is from the laboratory of Parke, Davis & Co. The American product is put up in better form for transportation and handling, which of itself is an important item. The stronger preparations of antitoxine are the best, and the average curative dose is (when administered early) 1,000 units (Behring's standard), and in severe cases, or adults, or advanced cases, or croup, 1,500 units should be given; and these doses may be repeated every twelve to twenty-four hours till 5,000 or 6,000 units are given in a single case. Two hundred units is an average immunizing dose. The usual antiseptic precautions should be observed, and no more care is required in the administration of antitoxine than in other "up to date" procedures in medicine and surgery. The injection should be made under the skin in the cellular tissue, and not in the muscular tissue, and over the chest, sides, or back, according to circumstances; but the dose being large, there is often considerable reaction and soreness at the site of the injection, which interferes with movements or handling for a day or two. For immunizing, an ordinary hypodermic syringe may be used, and the deltoid region is best, as it ordinarily is, for all injections for any purpose.

*Page 271, Fourteenth Biennial Report of the State Board of Health of California.

DR. DAVISSON'S LETTER OF PROTEST IN JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, MAY 28, 1898, PAGES 1301 AND 1302.

LOS ANGELES, CAL., May 18, 1898.

To the Editor:—In a forty-page booklet entitled, "The Present Status of Diphtheria Antitoxin Serum," issued in large editions by H. K. Mulford & Co., of Philadelphia and Chicago, on page 31 appears a testimonial in which is a willful change of name of the firm mentioned, which alleged testimonial reads as follows:

"California State Board of Health:—The antitoxin used in California is made in this country, and after considerable investigation and trials of the German and French preparations, we are giving our preference to the American production. . . . The antitoxin now used by the Board is that of H. K. Mulford Company, Philadelphia, Pa. The American product is put up in better form for transportation and handling, which is of itself an important item. The concentrated 'Extra Potent' (500 units to each c.c.) is the best.—J. H. Davisson, Los Angeles, Secretary California State Board of Health, in report on Diphtheria Antitoxin."

Permit me to say that I was never secretary of the California State Board of Health, and in the only report which I made upon antitoxin while a member of the said Board, I did not have occasion to mention the product of the above named firm. I enclose said report (which was published in Transactions of California State Board, and is part of the official records of the State), which tells entirely a different story. As a member of the AMERICAN MEDICAL ASSOCIATION since 1877, I dislike to be placed in a false light before my confrères to satisfy mercenary ends of any over-zealous firm. I am very truly,

J. H. DAVISSON, M. D.,

Ex-Pres. California State Board of Health.

"EXPLANATION" MADE BY THE H. K. MULFORD CO., IN JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, P. 37, JULY 2, 1898.

PHILADELPHIA, June 16, 1898.*

To the Editor:—We note the letter recently addressed to your journal, (May 28, p. 1301) by Dr. J. H. Davisson of Los Angeles, Cal., ex-president of the State Board of Health, relative to an irregular use of a recent report made by him, which was published in our antitoxin brochure about a year ago.

It was far from our intention to cause Dr. Davisson any annoyance, or to make any improper use of his name. It was not our intention to have it appear that the Doctor personally indorsed our product, but that the State Board of Health of California discriminated in favor of American antitoxin, and since, at the time our brochure was published, we were supplying, and have continued to supply the California State Board of Health with Mulford's Concentrated Antitoxin, *the statement as published in our brochure is correct.*† Our copy supplied the publisher incorporated the above with a quotation from Dr. Davisson's report. Unfortunately, our instructions regarding the use of the bracket were not carried out. *The article should have read according to our copy as follows:†*

CALIFORNIA STATE BOARD OF HEALTH.

The antitoxin used in California is made in this country and after considerable investigation and trial of the German and French products, we are giving our preference to the American production. The American product is put up in better form for transportation and handling, which is of itself an important item. [*The antitoxin now used by the Board is that of H. K. Mulford Co. of Philadelphia.* † The concentrated "Extra Potent" (500 units to each c.c.) is the best.]

We extremely regret that the bracket was omitted in placing this

* Please note this date.—Parke, Davis & Co.

† Italic lines ours.—P. D. & Co.

matter in type. Certainly we did not intend to have it appear that our product was personally endorsed by Dr. Davisson, but the fact that the California Board of Health was being supplied with Mulford's Antitoxin at the time our brochure was published, makes the statement as it appears in our brochure, with the exception of the personal endorsement of Dr. Davisson, absolutely correct.

Thanking you in advance for the publication of this explanation, we are

Very truly yours,

H. K. MULFORD COMPANY.

STATEMENT OF DR. J. R. LAINE (SAN FRANCISCO, JULY 12, 1898),
EX-SECRETARY AND EXECUTIVE OFFICER OF THE
CALIFORNIA BOARD.

DR. J. R. LAINE,
OFFICE, FOURTH FLOOR CROCKER BLDG.
Hours, 2 to 4. Telephone, Main 5064.
Residence, 920 Sutter Street. Telephone, East 948.

SAN FRANCISCO, CAL., July 12, 1898.

This will certify that the California State Board of Health did not at any time during the seven years ending April, 1897, endorse, nor adopt, officially or otherwise, the diphtheria anti-toxin manufactured by H. K. Mulford & Co., of Philadelphia.

J. R. LAINE, M.D.,

Ex-Secty. & Executive Officer of the Board.

RESOLUTIONS PASSED JULY 12, 1898, BY THE PRESENT BOARD.

SAN FRANCISCO, July 12, 1898.

Whereas, It has come to our knowledge that in the official report made by Dr. J. H. Davisson, ex-President of the State Board of Health of California, he made favorable mention of the Anti-Diphtheritic Serum manufactured by Parke, Davis & Co.; and

Whereas, We find that the H. K. Mulford Co. have seen fit to appropriate this report, substituting the name of H. K. Mulford Co. for that of the aforesaid Parke, Davis & Co.

Therefore, resolved, That this Board deprecates such conduct on the part of H. K. Mulford Co., inasmuch as their act amounts to a falsification of our records.

I hereby certify that the above is a copy of a resolution adopted by the State Board of Health of California, at a meeting held in San Francisco, July 12th, 1898.

W. P. MATHEWS, Secretary.

To our mind the foregoing seems to indicate a lack of business acumen. The medical profession assuredly will not countenance such conduct as is alleged by the responsible house which publishes *Therapeutic Notes*, and a firm doing the deed charged in the *Notes* is sure to reap a harvest of obloquy.

We are more than surprised that a reputable firm should attempt to bolster up a fictitious statement by such a lame explanation as they offer in the foregoing. The medical profession owes it to itself and its patients to give the whole matter careful consideration. Messrs. Parke, Davis & Company have always acted honestly in their dealings with the profession, and it is their vigilance which has unmasked the apparent attempt at deception.

In a spirit of fairness and justice, the JOURNAL offers the inculpatated house such space as may be required for the publication of a candid and convincing defense, if it have such to offer.

MEDICAL PROGRESS.

MEDICINE.

How to Diagnose a Movable Kidney.—Dr. C. W. Suckling, in an article entitled, "On Movable Kidney, with Special Reference to Its Influence on the Nervous System," (*Edinburgh Medical Journal*, September, 1898) says:

The diagnosis can only be made by palpation of the abdomen. The abdomen should be uncovered and the patient should be lying down. To feel the right kidney, the right hand should be placed on the abdomen, the thumb being on the last rib at the back, and fingers in front below the costal margin. The kidney may be felt with slight pressure of the fingers to be down, but if not, when the patient draws a deep breath, the kidney will slip into the fingers and can be slipped back easily. A common mistake is to palpate the abdomen with the flat of the hand; this simply pushes the kidney in front of the hand; the best way is to get the kidney between the thumb and fingers, and not to press too heavily so that the kidney can not come down. When the patient assumes the sitting or standing position, the kidney comes down more than it does during inspiration when lying down, and it is necessary before concluding that the kidney is not movable to examine the patient sitting or standing. In these two positions the patient should lean forward and try to relax the muscles. To illustrate the importance of this, two years ago I sent a woman, who had a movable kidney, and was unable to do her work, to a surgeon to be operated upon. The surgeon could not find the kidney when she was put under the anesthetic. He sent for me the following day to examine the patient again. I could not find the kidney while she was lying upon her back, but when I asked her to sit up the kidney could at once be felt in the iliac fossa. In examining the left kidney the left arm should be placed around the body, the physician standing on the right side of the patient, the fingers being placed under the last rib; the right hand should be placed under the left costal margin. On drawing the breath or on sitting or standing, if the kidney be movable, it will be felt between the fingers and can be made to slide up in a most characteristic way. The left kidney rarely

falls to the same degree as the right. I have never met with its falling below the umbilicus, while the right kidney frequently falls into the iliac fossa, and even into the pelvis. It is remarkable that the left kidney feels much smaller than the right.

Dangers of Hypnotism.—Dr. J. Milne Bramwell, in a Discussion on the Phenomena of Hypnotism, and the Theories as to its Nature (*British Medical Journal*, September 10, 1898) says: So far as my experience goes the employment of hypnotism by medical men who are acquainted with the subject is absolutely devoid of danger. I have seen no unpleasant symptom, even of the most trivial nature, produced by the induction of hypnosis. Further, I have never seen any evil after-effects, either mental or physical; and, if such were likely to occur, surely some of my patients would have presented them. I have hypnotized hundreds of persons of both sexes, and of all ages from early childhood upwards, occasionally repeating the process almost daily for months. Some of these were actually insane, while in many the mental condition was far from stable. In a considerable proportion recovery took place after hypnotic treatment, and many years have passed without relapse.

This view as to the alleged dangers of hypnotism is largely shared by others. For example, Prof. Forel says: "Liebeault, Bernheim, Wetterstrand, van Eeden, de Jong, Moll, myself, and the other followers of the Nancy school, declare categorically that although we have seen many thousands of hypnotised persons, we have never observed a single case of mental or bodily harm caused by hypnosis: but, on the contrary, we have seen many cases of illness relieved or cured by it."

Prolonged Diphtheria.—Golay (*Rev. Méd. de la Suisse Rom.*) publishes a case of diphtheria which, as regards the persistent presence of Læffler's bacillus, lasted over 362 days. On March 11, 1886, the illness began, and after an injection of anti-toxin the membrane had almost vanished on the 16th, and the child seemed quite well. Up till August 6th virulent cultures of the bacillus were obtained (twenty-five examinations), at first in pure cultures, afterwards along with streptococci. From then till September 2nd cocci predominated, but a few short bacilli proved experimentally to be diphtheritic, were present also. On September 1st there was an acute relapse, with patches on the

tonsils and *B. diphtheriæ* in pure culture. By September 4th, after an injection of serum (the third) the child was again cured clinically. On September 10th no bacilli were found microscopically, and the cure was thought to be complete (just six months from the beginning), and no more cultures were made. However, on October 22nd there was another acute relapse, and the short bacillus was present with streptococci. By October 28th nothing could be discovered under the microscope, and the patient, a boy aged 5½ years, was again looked upon as cured, and no further cultures were made till February 5th, 1897, when there was a third acute relapse when short bacilli streptococci were found. These persisted after a fourth injection of serum till March 9th. From then till September, 1897, the child kept well, but, as the parents would not consent to any more bacteriological examinations, it is doubtful if he was finally cured even then. Golay thinks there can be no doubt but that bacilli were never really absent. He concludes from this and other cases that (1) a fortnight's isolation after the disappearance of the false membrane, as advised in classical works, is totally inadequate; not till three or four examinations at intervals of a week have proved the complete absence of bacilli can cure be considered permanent; (2) the presence of Loeffler's bacillus between the attacks of angina does not alter the general health; (3) the prolonged presence of diphtheria bacilli after the disappearance of membrane is the rule rather than the exception, but probably this period is not so prolonged when there is an associated streptococcus infection; (4) local treatment should be abandoned entirely, as its only use is to torture the patient. In the case given above a good number of local applications recently recommended (by Loeffler and others) were tried thoroughly without the slightest effect.

THERAPEUTICS.

Lactophenin in Acute Articular Rheumatism.—Dr. G. v. Roth, Staff Member of II. Medical Clinic of Prof. Dr. Neusser, writes in the *Wiener Klin Wochenschrift*, Vol. VII., No. 37:

During the past twenty years, from its introduction by Buss, as an agent having almost specific action on acute articular rheumatism, sodium salicylate has preserved its place unassailed, despite the fact that in many cases its application proved use-

less, or, it had to be discontinued because of untoward side-effects.

Lately a new remedy has been introduced, so warmly recommended by several medical authorities that it seems sure of a permanent place in modern *materia medica*, which has prompted us to an investigation, with the view of finding in it a possible substitute for sodium salicylate.

Lactophenin, $\text{—OC}_2\text{H}_5\text{C}_6\text{H}_4\text{—NH, CO, CH (OH)—CH}_3$, is simply a lactic acid derivative of phenetidin, differing only from phenacetin in replacing the acetic acid bound to the ammonia by a lactic acid radical. It occurs as a crystalline, white powder, of mildly bitter, not unpleasant taste, soluble in 330 parts of water.

Schmiedeberg, who tested it pharmacologically on animals, reported as follows:

“Lactophenin, in the manner of the antipyretics—of the antipyrin and phenacetin class—promptly reduces abnormal body temperature. At the same time it produces, in much higher degree than phenacetin, etc., a hypnotic and analgesic relief from pain. Respiration and circulation remain unaffected. It is possible even to completely repress feeling and voluntary movements and almost the reflex motions in a rabbit, by administering lactophenin, without noticeably reducing respiration and circulation, the condition being similar to the narcosis produced by urethane. And if, in this condition, the spasms, which are characteristic of antipyretics, should occur, complete recovery will ensue within a few hours. Despite comparative insolubility, lactophenin is quickly absorbed in the stomach, and its full effects from appropriate doses is promptly induced.”

In order to appreciate the advantages of lactophenin over agents equal to it in antipyretic effect, it may be briefly stated, that antipyrin and even more acetanilid, from experience with their unpleasant effects on the heart, should be employed only with extreme care; that the anilide products frequently cause cyanosis, vomiting and exanthem; that under conditions of collapse, antipyrin, acetanilid and phenacetin are therefore contraindicated, and that medical literature records a number of cases with fatal issue from sulfonal.

It must not be forgotten either, that the use of sodium salicylate is accompanied by very unpleasant symptoms of dyspnea, dizziness, tinnitus aurium and even delirium and hallucinations.

Regarding dosage and mode of administering lactophenin, we consider it advisable to take the drug in capsules or plain, with water. The single doses should be 0.5 to 1.0 gm., to be repeated and increased up to 6.0 gm. total per day, according to desired antipyretic or analgesic (hypnotic) effect.

About an hour after taking a 0.5 gm. dose, a subjectively noticeable feeling of warmth, with subsequent heavy perspiration, is likely to follow. The pulse usually becomes slower and fuller; respiration continues unchanged.

The drug apparently has no influence on the secretions. Diuresis continues normal; increased perspiration has been mentioned. Elimination proceeds through the urine, which shows the paramidophenol reaction.

Lactophenin has thus far been successfully employed in enteric fever, pneumonia, influenza, erysipelas, acute febrile tuberculous affections, scarlatina, sepsis, neuralgic influenza, chronic and acute articular rheumatism.

As the record of cases of acute articular rheumatism, by the authors previously named, is limited (Dr. Scheben noting only one case, which was favorable, and Dr. Sternberg's experience was unfavorable, probably—as he says himself—because the dosage employed was not adequate), the following record of our cases will prove interesting:

CASE I.—T. F., twenty years, June 8th to 14th. Patient generally in good health, is suddenly attacked by pains in the knuckles of the hand, with swelling. At the same time patient notices that his urine becomes dark, and that he feels the necessity of urinating frequently. No headache nor edema. Lungs normal. Mild dilatation of heart, muffled heart-sound. Accentuated pulmonary sound. Otherwise nothing abnormal. Quantity of urine, 1,000; sp. gr. 1021; albumin +0.8% Esbach; chlorides normal; phosphoric acid increased. Sediment contains granular, epithelial and hyaline tubecasts, leucocytes. The blood-preparation shows no film-net, slight polynuclear leucocytosis.

Therapy: Lactophenin, 5 gm. per day, divided doses. Cataplasms of acetate alumina.

June 9th, painfulness of wrist-joint disappeared after eighteen hours; wrist freely movable.

June 11th, swelling entirely disappeared from wrist-joint, movable without pain.

June 12th, systolic murmurs at apex of heart, besides heart sounds. Joints free from pain.

June 13th, urine pale yellow; only traces of albumin; sediment shows granular tubecasts sparingly.

June 14th, patient leaves hospital cured.

(Seven other cases are detailed, for which we have no room.—M. & S. J.).

We have similar records, all with favorable issue, of twenty additional cases, recital of which is omitted for sake of brevity. We confine ourselves, in summarizing our experience with lactophenin as an anti-rheumatic, to saying that:

1. Pain, local erythema and swelling will disappear within a few days, usually within twenty-four to forty-eight hours after first dose of lactophenin, and that recovery ensues quickly;
2. Temperature is permanently lowered; and
3. No evil side-effects follow even larger doses.

It may be added that lactophenin has proved an excellent remedy in several cases of chorea. And in tabetic patients a few doses of lactophenin markedly diminishes the severest neuralgia.

The conclusions seem justified, therefore, that lactophenin is suited and deserves to share with sodium salicylate the place as rheumatic specific.—*Atlantic Medical Weekly*.

Action of Bovinine in a Complicated Gynecological Case.—CATALOGUE CASE 27; ULCERATION CXXI. AND ANEMIA XXX.—Mrs. K—— J——; Swede; New Canaan, Conn; age 34; admitted February 8th; ulcerative tubercular endometritis, and tubercular vaginitis. In addition, patient presented all the symptoms of a well defined case of anemia. The blood, on microscopical examination gave but half a normal count of red cells and but forty per cent. of hemaglobin. Microscopic examination of the secretions of uterus and vagina revealed distinct traces of tubercle bacilli. She was given from the first a tablespoonful of bovine in claret every three hours. The vagina was cleaned out with the bovine-peroxide reaction washed out with Thiersch, twice a day, to February 14th, when the condition was so much improved that it was decided to attack the uterus. After it had been cleared out by the bovine-peroxide reaction washed off with Thiersch, it was packed with strips of sterilized gauze which had been saturated with iodo-

form-bovine and wrung out. After four days the packing was removed, and the interior was found perfectly sweet and healthy in appearance. The process was again repeated, and the vagina cleansed in the same way, twice daily until the 25th, and on this day all points of granulation in the vagina were touched with twenty-five per cent. pyrozone, and thenceforward bovine tampons were employed posteriorily and changed twice a day. By March 3d the condition of the patient showed marked improvement; the blood was already almost normal; and the secretions of the uterus and vagina revealed to the microscope no trace of the tubercle bacillus. On the 12th the bovine tampons were discontinued; the womb and vagina being restored to a normal condition. Bovine was continued internally until the 26th, when the case was discharged cured.

PHYSIOLOGICAL AND PATHOLOGICAL NOTES.

Some Observations on Brain Anatomy and Brain Tumors.—Dr. William C. Krauss of Buffalo read a paper at the 92nd annual meeting of the Medical Society of the State of New York, Albany, Jan. 25, 1898, with the above title.

He called attention (1) to the difficulty in remembering the gross anatomy of the brain, and (2) to the almost universal presence of optic neuritis in cases of brain tumor.

He attempted to overcome the difficulty in regard to the anatomy of the brain by formulating the following rules, which are somewhat unique and original, and at the same time easily remembered :

Rule of Two. 1. The nerve centers are divided into two great divisions, (1) encephalon, (2) myelon. 2. The encephalon is divided into two subdivisions, (1) cerebrum, (2) cerebellum. 3. The cerebrum, cerebellum and myelon are divided into two hemispheres each, (1) right, (2) left. 4. The encephalon is indented by two great fissures, (1) longitudinal, (2) transverse. 5. Into these two great fissures there dip two folds of the dura, (1) falx cerebri, (2) tentorium cerebelli. 6. There are two varieties of brain matter, (1) white, (2) gray.

Rule of THREE. 1. There are three layers of membranes surrounding the brain, (1) dura, (2) arachnoid, (3) pia. 2. Each hemisphere is indented by three major fissures, (1) sylvian, (2) rolandic or central, (3) parietooccipital. 3. Three lobes, frontal,

temporal and occipital, on their convex surface are divided into three convolutions each,—superior, middle and inferior, or 1st, 2nd, and 3rd. 4. There are three pairs of basal ganglia, (1) striata, (2) thalami, (3) quadrigemina. 5. The hemispheres of the brain are connected by three commissures, (1) anterior, (2) medi, (3) post-commissure. 6. The cerebellum consists of three portions, (1) right, (2) left hemispere, (3) vermes. 7. There are three pairs of cerebellar peduncles, (1) superior, (2) middle, (3) inferior. 8. The number of pairs of cranial nerves, in the classifications of Willis and Sommering, can be determined by adding 3 to the number of letters in each name; that of Willis making 9, and that of Sommering making 12 (or the name containing the more letters has the larger number of pairs of nerves, and vice versa). 9. The cortex of the cerebellum is divided into three layers of cells, (1) granular, (2) Purkinje's cells, (3) a molecular layer.

Rule of FIVE. 1. Each hemisphere is divided externally into five lobes of which four are visible, (1) frontal, (2) parietal, (3) temporal, (4) occipital; and one invisible (5) insula (Isle of Reil). Roughly speaking, the visible lobes correspond to the bones of the cranium; that is, the frontal lobe is underneath the frontal bone, the parietal lobe beneath the parietal bone, etc. 2. The brain contains five ventricles, of which four are visible—the right and left, or 1st and 2nd, the 3rd and the 4th; and one invisible, the 5th or pseudo-ventricle. 3. The cortex of the brain contains five distinct layers of ganglion cells.

Studying carefully 100 cases of brain tumor in which an ophthalmoscopic examination had been made for the presence or absence of choked disc (optic neuritis) Dr. Krauss announced the following conclusions :

1. Optic Neuritis is present in about 90 per cent. of all cases of brain tumor.
2. It is more often present in cerebral than in cerebellar cases.
3. The location of the tumor exerts little influence over the appearance of papillitis.
4. The size and nature of the tumor exerts but little influence over the production of the papillitis.
5. Tumors of slow growth are less inclined to be accompanied with optic neuritis than those of rapid growth.
6. It is probable that unilateral choked disc is indicative of disease in the hemisphere corresponding to the eye involved.

7. It is doubtful whether increased intracranial pressure is solely and alone responsible for the production of an optic neuritis in cases of brain tumor.—*The Philadelphia Medical Journal*.

The Action of Mineral Waters and Drugs on the Bile.—Dr. W. Bain, (*Journal of Balneology*, July, 1898) places on record his investigations in the case of a man, forty-nine years of age, who had a permanent cutaneous biliary fistula; he concludes as follows: (1) The amount of bile secreted in the twenty-four hours in a man somewhat below the medium height and weight averages 775 cc.m., and the bile solids 15.8 grammes. (2) More bile is secreted during the day than at night. (3) The sulpho-cyanate of potassium in the saliva is not derived from the biliary salts. (4) The old sulphur spring at Harrogate, Carlsbad, mineral water, euonymin, benzoate of soda, salicylate of soda, and the Kissengen Spa Spring of Harrogate, increase both the quantity of the bile and bile-solids. (5) Podophyllo-resin and iridin augment the bile solids without appreciably affecting the quantity of bile. (6) The strong Montpellier Spring of Harrowgate and podophyllo-toxin appear to diminish slightly both the quantity and the solids. (7) Hot water and soda-water in pint doses do not seem to increase the biliary secretion. (8) Salicylate of soda increases the excretion of uric acid in the urine.

The Physiology of the Liver and the Role it Plays in Digestion and Nutrition.—Dr. George E. Davis, (*New York Medical Record*, September 17, 1898) writes as follows: The liver is a great physiological protector and preserver of the organism in three ways. 1. It prevents disease. It constitutes a barrier not only against poisons introduced with the foods, but against substances which result from perversion of the primary digestive processes in the alimentary canal, such as alkaloids of fermentation and putrefaction. 2. The liver combats and controls disease by perfecting the ultimate steps of digestion, thus furnishing nutrition and munition to the army of cells in their battle with microbes and toxins. 3. The liver preserves the health and hygiene of the body by directly eliminating toxins and waste products of metabolism through the bile into the intestines, and indirectly by furnishing the most powerful physiologic diuretic, urea, to stimulate the most important excretory organ,

the kidney, thus aiding the complete elimination of the waste products of normal dissimulation, as well as the refuse resulting from the carnage in the combat of the cells against disease.

DISEASES OF WOMEN AND CHILDREN.

Is there Room for Improvement in Our Present Mode of Clinical Instruction in Midwifery?—Dr. John Edgar (*The Glasgow Medical Journal*, September, 1898), in an article on this subject advises that the following be adopted:

1. Before being allowed to attend the hospital, each student should have taken a course on midwifery.

2. Each student should be compelled to see, say, six cases in hospital before being allowed to take outdoor practice.

3. The indoor house surgeon or the visiting obstetrician should drill each student in the whole aseptic management of labor.

4. Each student should be compelled to make several *per vaginam* examinations under the supervision of the indoor house surgeon or the visiting obstetrician. It may be objected that these examinations would expose the patient to the risk of infection, but does this not apply with more force to the present system, where the students in their outdoor cases examine patients without any supervision at all? Besides, in order that the students may become successful practitioners, it is necessary that they should learn practically the proper method of making such examinations.

5. Each student should be taught how to make an abdominal examination, and for this purpose it would be well to admit a certain number of women before labor comes on. This is of great importance in view of the fact, which has been ably proven, that every *per vaginam* examination made on a parturient woman exposes her to grave risks of septic infection, and also because one may in this way diagnose a transverse presentation, a face presentation, etc., at a stage when it is impossible or very difficult to do so *per vaginam*, and so be in a position to guard early against the grave risks involved. Such cases occur rarely, but unless a man has acquired experience by frequent abdominal examinations, and has been trained in the best methods, how can he be expected to diagnose them when they do occur? Let me add, also, that abdominal examinations during pregnancy, lead the student to understand the importance of examining all other patients in this way two or three weeks before full term.

6. All the students in attendance at the hospitals ought to be taken around the wards daily by the visiting obstetrician for clinical instruction on the management of the puerperium, the care of the infant, etc.

7. After having seen, say, six cases in the hospital, each student should attend the outdoor practice, and should be accompanied to his first two cases by the outdoor house physician, or an assistant appointed especially for this purpose, whose duty it should be to show him how to adapt the conditions met with to the best advantage.

8. In cases of emergencies, the student or the special assistant referred to, should send for the outdoor house physician or district accoucher.

On Rötheln.—Dr. Leonard G. Guthrie, in a new journal published in London (*Treatment*, September 8, 1898) concludes an article with the above title as follows:

1. The clinical course of rötheln is not incompatible with the view that it is an anomalous form of measles occurring toward the end of an epidemic of that disorder.

2. The rash can, as a rule, be distinguished from that of scarlatina. When it is indistinguishable, the disease is probably scarlatina, and should be regarded as such.

3. The rule that immunity is afforded by one attack of an exanthem against another admits of so many exceptions that it cannot be used as an argument in favor of the specificity of rötheln.

SURGERY.

Surgical Convalescence.—The report of blood-count in twenty cases is given by Dr. Stuart McGuire, Richmond, Va., as follows:

Several months ago I received a visit from an agent of the M. J. Breitenbach Company of New York, manufacturers of Gude's Pepto-Mangan, who stated that his firm was anxious for me to test their preparation on surgical cases and to publish the results. I agreed to do so provided I would be allowed to utilize the first twenty major cases on which I operated, and that his company supplied me with the drug and paid the cost of the necessary blood-counts.

I append a report of twenty cases. Eleven of them were pri-

vate patients at St. Luke's Hospital, and nine were clinic cases at the Virginia Hospital. The histories are taken from official records, augmented by the blood-counts made by Dr. M. D. Hoge, Jr., Professor of Pathology in the University College of Medicine.

When it is remembered that the patients were all confined to bed, and that they were subjected to the depressing influence of hospital life, the average increase of red blood corpuscles is remarkable. Had the patients been selected, and only anemic patients tested, the results would have been even showier:

[Here follow the reports of twenty cases, of which a few are reproduced].

CASE VII. — Master D. S. J., aged 9. Patient St. Luke's Hospital. Acute suppurative osteomyelitis of femur, tibia and tarsus on one side, and of tibia and tarsus on the other. Amputated one limb, and used chisel and curette on the other. Gave Gude's pepto-mangan forty-five days. First count, 3,720,000 red corpuscles to the cubic millimetre. Second count, 4,600,000 to the cubic millimetre. Patient discharged with well-healed stump, but incision in ankle still draining.

CASE IX. — Master R. G., aged 14. Patient St. Luke's Hospital. Compound depressed fracture of skull from a three-pound mass of type metal falling five stories. Trephined, and removed blood clot and spiculæ of bone. Gave Gude's pepto-mangan twenty-one days. First count, 3,900,000 red corpuscles to the cubic millimetre. Second count, 3,800,000 to the cubic millimetre. The loss was less than anticipated, as the boy was injured while in vigorous health. Recovery rapid and complete.

CASE X. — Miss A. E. S., aged 27. Patient St. Luke's Hospital. Indigestion, constipation and dysmenorrhea. Rapid dilatation of cervix. Gave Gude's pepto-mangan thirty-four days. First count, 3,900,000 red blood corpuscles to the cubic millimetre. Second count, 4,400,000 to the cubic millimetre. Bowels became regular, menstruation painless, and strength and weight increased.

CASE XVII. Mr. P. S., aged 51. Patient Virginia Hospital. Suppurative osteomyelitis of tibia. Amputation of limb. Gave Gude's pepto-mangan twenty-eight days. First count, 3,400,000 red corpuscles to the cubic millimetre. Second count, 3,700,000 to the cubic millimetre. Recovery, with marked improvement in general health.

CASE XX.—Mrs. S. J., aged 31. Patient Virginia Hospital. History of three acute attacks of appendicitis. Thin, anemic and nervous. Appendectomy. Gave Gude's pepto-mangan twenty-six days. First count, 2,644,000 red corpuscles to the cubic millimetre. Second count, 3,950,000 to the cubic millimetre. Gained fifteen or twenty pounds in weight, and is completely well.—*Virginia Med. Semi-Monthly.*

A New Antiseptic Dressing.—Dr. L. G. Doane, Brooklyn, N. Y., says:

Quite recently a new antiseptic dressing has been introduced. It is called Campho-Phénique Powder. I have used this powder with satisfaction as a dry dressing upon incised and lacerated wounds. I usually dust the powder upon both kinds of wounds, after washing and cleaning the raw surface, and before stitching and applying a bandage. Other physicians have used it in leucorrhea, and a few think it is an excellent catarrhal remedy. There is no doubt that Campho-Phénique Powder is an excellent antiseptic agent, and those having used it once will do so again.—*Practical Medicine.*

Pott's Fracture.—Dr. R. W. Knox (*New York Medical Record*, Sept. 17, 1898) sums up the subject of treatment as follows: (1) Plaster of Paris is the best dressing for fractures about the ankle; (2) this dressing should be put on immediately after the receipt of the injury, or as soon as possible; (3) swelling is not a contraindication to the use of the plaster; (4) it takes longer for ligamentous than for bony union, and a patient should not use his feet for locomotion for several months after the injury; (5) no other dressing so nearly prevents a motion, and on this account it is especially valuable in compound luxations; (6) small capillary drains may be used, but rubber drainage tubes through the joint are unnecessary, and capable of doing much harm.

On the Healing of Wounds in the Negro Races.—Plehn, in the *Deut. med. Woch.*, as the result of his studies, finds that infected wounds are rare among the negro races in Africa, and, moreover, severe wounds seem to heal sooner than do like wounds occurring in Europeans. He also concludes that the specific pus organisms are not common in Kamerun, and that the tissues of the negro are distinctly resistant.—*Ex.*

DERMATOLOGY AND SYPHILOLOGY.

Syphilitic Ulcer of the Stomach.—M. Dieulafoy reported to the Academy of Medicine the case of a patient under his care on account of an ulcer of the stomach from which he had suffered for a year or eighteen months. He had been under the care of several physicians and always manifested the same symptoms, which no treatment seemed to alleviate. At last, the symptoms being so serious and the vomiting so incessant, surgical intervention was proposed. At this time the patient entered the service of M. Dieulafoy.

As M. Kahn, M. Dieulafoy's chief of clinic, found syphilitic scars upon the limbs of the patient, the suspicion arose that the gastric ulcer was due to syphilis. In fact the first symptoms of the ulcer had begun when the man was covered with a secondary eruption. M. Dieulafoy then ordered specific treatment by means of hypodermic injections of biniodide of mercury in oily solution, the daily dose being 4 milligrammes (about one-sixteenth of a grain). After the seventh injection the patient ceased to vomit and after the fourteenth he was able to eat any food. Subsequent to this time he took a few grammes of the iodide.

After the thirtieth injection he left the hospital, having gained several kilogrammes in weight.

This case is absolutely typical. Several instances of syphilitic ulcer of the stomach have been reported. From the anatomopathological point of view we may refer to the case of Cruveilhier (1838), of Lancereaux and of Cornil (1879), in which last there existed a gastro-hepatic gumma.

In 1891 Chiari published an important study of the subject in which he showed that syphilitic ulcers of the stomach may be simple specific ulcers or ulcerated gummata. As regards clinical observations we may recall the two remarkable cases of Andral, those of Gaillard (1886), and those reported by M. Fournier at the commencement of this year.—*Medical Bulletin*.

Two Rare Diseases of the Skin.—At a recent meeting of the Berlin Dermatological Society, Dr. Joseph presented two extremely rare cases of diseases of the skin and its appendages. One was an example of leukonychia, that peculiar universal

whitish discoloration of the nails, due to the presence of air beneath them and in their substance, and of which there are but four or five other cases recorded in the literature. The other case was an interesting specimen of what Unna has called acanthosis nigricans and Kaposi keratosis nigricans. The lesions appear as dark-colored warty growths, from grayish-brown to brownish-black, occurring especially on the back of the neck and in the axillary and pectoral folds. This patient was much younger than the victims of the disease usually are, being only twenty years old, and the lesions were distributed on the back of the neck and along the margin of the hairy scalp. The man was perfectly well otherwise, though the disease had begun a couple of years ago. The case is to be watched with special interest, as practically all of the patients in whom the disease has thus far been observed have died within a comparatively brief period after its development, of carcinoma of some of the abdominal viscera, especially of the stomach.—*Philadelphia Medical Journal*.

Treatment of Leprosy in the Fiji Islands.—Prof. L. Lewin has been investigating the peculiar properties of the tree with which the Fiji islanders cure leprosy, according to the accounts of the missionaries. He recommends further research in regard to what may prove a valuable acquisition to our therapeutics, administered in a less barbarous fashion. The person affected with leprosy is placed in a small hut and rubbed down with the fresh leaves of the *excoecaria agallocha*, or poison milk tree. His body is then covered with the leaves, his hands and feet tied and he is dragged to a small fire made of boughs of the tree, his head in the midst of the heavy black smoke, about fifteen inches from the floor. The friends then retire and close the door, unmoved by the cries and appeals of the victim, who is left in this smudge for several hours, when he is removed and the skin scraped, and scratched in various places deep enough to draw blood, when he is left to rest. Some die, but those that survive are cured of the leprosy. The essential points are the heat, the long-continued action of the milky sap and its melted products, and possibly the scarifications. The tree is known throughout the Pacific as very poisonous, causing blindness if any of the sap gets into the eyes. One or two drops will purge

like croton oil (*Deutsche Med. Woch.*)—*Journal American Medical Association*.

The Nature and Treatment of Lupus Erythematosus.—Dr. C. P. M. Boeck (*British Medical Journal*, Sept. 10, 1898) in a discussion on this subject, held at the sixty-sixth annual meeting of the British Medical Association, held in Edinburgh, treats of the nature of this disease, and concludes as follows:

1. Lupus erythematosus is always and in all its forms an eruptive inflammatory disease of which the localizations are determined by the vasomotor centres of the skin. It is never merely a local process.

2. Local irritation by heat, cold, and drugs plays only an accidental and determining part by bringing the vasomotor system into play.

3. In view of the very frequent coincidence with tuberculosis it must be admitted that the latter plays an important part in the etiology of the skin affection, and is probably the real and essential cause of it. The fact that a connection may be traced between all forms of lupus erythematosus and certain affections the dependence of which on tuberculosis is beyond doubt, is an evidence for the tuberculous origin of lupus erythematosus.

4. As the tubercle bacillus cannot be proved to be present in the inflamed skin, it is probable that the inflammation is brought about through the toxins of the bacillus which act in the first place on the vasomotor centres, and in the second place on the parts of the skin in which the vasomotor disturbances are set up.

5. The main anatomico-pathological changes are vasomotor dilatation of the blood vessels, secondary poisoning of the tissue cells, and inflammation—the whole resulting very often in atrophy, rarely in necrosis.

GENITO-URINARY DISEASES.

Fracture of the Penis.—A man in a very drunken state had a powerful erection, and without any cause or reason known to himself he with both hands bent it forcibly backwards. He was conscious of something giving away, and awakened with the pain. The erection subsided after a time, and the pain also, but he was very much surprised in the morning by the enormous dimensions the organ had assumed, and its color. He therefore

hastened to the hospital. With the exception of the glans, the organ was swollen and of a dark violet color. On the dorsum was a painful thickening, when the surgeon suspected a rupture of the corpus cavernosum had taken place. The treatment consisted of rest in bed, cold compresses and lead lotion, and in fourteen days the normal color had returned, although the thickening remained almost unchanged. In six weeks the patient showed that, although a slight thickening still remained, no lasting injury had been sustained.—*South. Med. Pract.*

Renal Hemophilia.—At a meeting of the Surgical Society M. Nimier cited a case of essential hematuria which he had observed in a man of 22 years. The passage of blood had followed an abdominal injury, lasted for five years and was not relieved by rest. As the bladder was healthy and the left kidney appeared painful, M. Nimier performed lumbar nephrotomy, and having found several indurated points in the kidney removed the organ. The patient recovered, but not long afterwards again began to pass blood. Histological examination of the kidney showed the lesions of interstitial nephritis. M. Nimier concluded that in this case the hematuria was symptomatic of the nephritis and that, under the conditions, the operation was not indicated.—*Med. Bul.*

NEUROLOGY.

The Electrical Treatment of Tic Douloureux.—Bergonié (*Arch d'Elect. Méd.*) tries to show, on the basis of fifteen cases observed by himself and others, of which he gives full details, that electricity affords the best means of palliating, if not curing, tic douloureux, and at the same time states his views as to the best way in which to use it. Majendie employed galvano-puncture, while Duchenne preferred faradism, but the modern tendency is to use the continuous current. Bergonié recommends that this should be obtained from piles or accumulator, and not from electrical machines; that they should be of very high intensity—never less than thirty-five and often over fifty milliamperes; and that the positive electrode should be applied to the seat of pain. This positive electrode should have an area of 200 to 250 square centimetres; the negative about double the size, is applied over the spinal column, and each setting should last at

least fifteen minutes, many exceeding half an hour. The author lays great stress on the employment of a rigid positive electrode accurately moulded to the face; the affected area is thus exactly covered, and the application of the current both direct and definitive. Bergonié is inclined to attribute the action of the current in these cases to its electrolytic rather than its electromotive properties. At the end of the application the skin of the affected region has not only lost its hypersensitiveness, but is almost, if not quite, anæsthetic, and the same applies to the deep parts, so that the muscular actions involved in speech, mastication, etc., no longer produce pain. The author's conclusions are as follows: (1) In the present state of the treatment of trigeminal neuralgia, galvanism with currents of high intensity and long duration is to be placed among the most efficacious remedies. (2) When this is applied in the correct manner it is free from all inconvenience and, still more, from danger. (3) Its action is probably to be reckoned among the electrolytic effects of the current, and these may very likely reach the trunk and roots of the affected nerve, as well as its peripheral terminations.—*Brit. Med. Jour.*

Subra-Orbital Neuralgia.—Dr. L. C. Armstrong, Taylorville, Ill., writes: I have personally been a sufferer from periodical attacks of subra-orbital neuralgia for the past seven years, each attack lasting from two to three days, and during this time the partaking of any food would invariably provoke nausea and vomiting. I had, of course, used many remedies, and such of the coal-tar preparations as I tried gave very slight relief. If they were taken in sufficient doses to simply muffle the pain in the least they invariably affected the heart, producing nausea, etc., thus making matters worse than the disease, so I continued to suffer until last March, when, during one of these attacks, I happened to think of a sample lot of Gárofen tablets, which I had carried with me for perhaps two months without their attracting my particular attention. I now, however, concluded to experiment with them on my own case, and taking a dose about twenty minutes before supper, and, on being called for supper, to my surprise, I was entirely relieved from pain, nausea and heart depression, and, to the surprise of my family, ate a hearty meal, something I could not do before during one of these attacks.

I have since continued the use of this preparation in my own case and in others with the most happy results.

Headaches from Auto-Intoxication.—It is probable that in the treatment of migraine no remedy will ever be discovered that will meet all the indications in every case; it is, therefore, of importance that the physician should have at his disposal a number of efficient remedies from which to make his selection, according to the particular conditions present. Among these, caffein has for a number of years enjoyed great popularity, especially in combination with other analgesics. Observations have shown that in a considerable number of cases of migraine the condition is one of auto-intoxication, due to the circulation in the blood of the products of faulty digestion and mal-assimilation, which exert an irritant effect upon the nervous system. The value of caffein consists in its favorable action upon the vaso-motor system, and its marked diuretic influence, in consequence of which it promotes the elimination of toxic matter from the system. By combining caffein with phenacetin, however, a much more effective remedy is secured; for, aside from its recognized analgesic effect, phenacetin is an excellent internal antiseptic, preventing gastro-intestinal fermentation and the production of toxins in the intestinal canal. Much better results can, therefore, be expected from the combination of caffein and phenacetin, which has been introduced under the name of hemicranin, than from any single remedy ever recommended in the treatment of that numerous class of headaches due to auto-intoxication.

DISEASES OF THE NOSE, THROAT AND EARS.

Rhinolith or Nasal Calculus.—Dr. Wm. H. Poole of Detroit read the report of a case, and exhibited the specimen to the Wayne County Medical Society some time since.

Miss L. K., aged 24 years, from whose nose this was taken, consulted me January 1, 1898, regarding her nasal catarrh, with which she stated she had been afflicted ever since her childhood, ten years ago.

On making anterior and posterior rhinoscopic examination, I found considerable hypertrophy of the turbinates of the left side, especially of the inferior turbinal.

I suggested an operation for the removal of the hypertrophied

tissue of the lower turbinal, which was impinging on the floor of the nose. This was agreed upon, and on Saturday, January 15, I operated at 3 p. m. in the usual way, cocaineizing the parts thoroughly and making a practically painless operation.

Hemorrhage was not very profuse and was readily controlled at this time. The patient returned home, and soon after suffered from an attack of nervous sick headache, to which she was subject upon occasions of nervous strain.

As usual, the headache ended with an attack of retching, after which straining the hemorrhage started in afresh and rather profusely. I tried again to control it with styptics and plugging the naris with absorbent cotton, but did not succeed in thoroughly arresting the flow of blood, and, as the patient was getting very weak, with the kind assistance of Dr. Suttie, I tamponed through the posterior naris with a sponge tent, which instantly stopped the hemorrhage. I then ordered her to be liberally supplied with beef extract, for the double purpose of nourishment and to increase the arterial tension.

Sunday, the next day, she was doing nicely, but was very weak; there was no recurrence of the hemorrhage, but I did not think it advisable to remove the tampon as she was too weak to bear it.

Monday, January 17th, the patient was a little stronger, but owing to debility, I could only remove a part of the tampon from the anterior naris.

The next two days I removed still more of the sponge anteriorly, in all about two-thirds of it being removed up to this time, the patient still being too weak to bear much manipulation.

On Thursday morning, January 20th, I attempted to remove the remainder posteriorly, but found it so firmly fixed that it could not be dislodged except with extreme force under anesthesia. I called in Dr. Chittick and anesthetized the patient, when, with considerable difficulty, we removed the remainder of the sponge,

After the patient recovered from the anesthetic, I cleansed the nasal cavity thoroughly with hydrozone, one part to twelve parts of lukewarm water, and she returned home rejoicing, the turbinal wound being in good condition, healing nicely.

Next morning she came to my office for treatment, and stated she had enjoyed perfect freedom in breathing through that nostril until about four o'clock in the morning, when, changing her

position in bed, that side became suddenly obstructed. After cleansing the nostril, which was seemingly full of an offensive discharge, I discovered this body, which was attached at the posterior end on the outer side of the inferior meatus, lying, as it were, in a groove or pocket.

The anterior or loose end of it was sharp like a speculum of bone, and black in color; it was freely movable about its long axis, so that you could pass a cotton holder around it and lift it from its bed. After cocainizing, I grasped it with a dressing forceps and, giving it a twist, removed it. I then thoroughly cleansed and disinfected the cavity with the hydrozone solution, which removed the odor and rendered the cavity wholesome.

The next day two smaller pieces were removed while cleansing and treating the nose. They were loose and seemed as though they had just scaled off from the bed where the larger piece had lain.

The spraying of the nasal cavity with hydrozone, followed by the use of glycozone, constituted the treatment for the next four days, by which time the offensive odor had entirely disappeared, and the parts had assumed a healthy condition.

This concretion formed on the outer side of the inferior meatus, and as it grew larger it obstructed the flow of tears through the nasolacrimal canal, as evidenced by the overflow of tears from the left eye, which condition ceased immediately after removal of the rhinolith.—*New York Medical Journal*.

A Case of Blue Nasal Secretion.—At the annual congress of the French Society of Otology and Laryngology, M. Molinié of Marseilles related the case of a young woman, 25 years of age, in whom, after a severe attack of grippe, accompanied by intestinal, gastric, and nervous symptoms, there occurred a discharge of blue secretion from the nose. In the beginning the discharge was generally viscous and colorless. Several times during the day, however, the mucous was streaked by lines of blue as deep as methylene blue. Examination of the nasal fosse demonstrated that the source of the secretion was the middle meatus of the right side.

Bacteriological investigation revealed the presence of a short, squat bacillus with rounded extremities, colored by methylene violet and gentian violet and retaining its color under the Gram reagent. Although cultures did not yield the characteristic blue

color, it is very probable that this case of blue chromorhinorrhea was due to the development of a pyrocyanic colony in the frontal sinus of the right side.—*Revue Hebdomadaire de Laryngologie, etc.*—*Ex.*

MEDICO-LEGAL.

Marriages Between Cousins.—Dr. John Inglis (*Columbus Medical Journal*, August 16, 1898) concludes an article on this subject as follows:

(1) In the marriage of cousins-german, the effect upon offspring will follow the law of heredity, the consanguinity *per se* being *nil*.

(2) Given high physical, moral, and intellectual development, the effect of the union would be beneficial rather than otherwise.

(3) Special talents, either for good or evil, may be developed by intermarriage. This was the case in the historic musical family, the Bachs, where the musical talent was developed to a high degree of excellence.

(4) In an effort to compare one hundred cases of marriages between cousins-german, with one hundred average marriages where no relation existed, he took by lot from a physician's case-book, who had practiced in a town of fifteen hundred inhabitants for thirty years, and knew their family histories well, the names of one hundred families, and had this physician give him the record of these one hundred marriages with regard to sterility, pulmonary, mental, and congenital diseases. These were then compared with the marriages of cousins. The latter showed a lower percentage of sterile marriages and a slightly lower percentage of mental diseases. In pulmonary and congenital diseases there was about the same percentage of difference in favor of the former. In all other particulars the difference amounted to as little as any such comparisons can. In the one hundred cases of those not related, seventeen per cent were sterile; in the cousins-german, fourteen and a half per cent. These figures agree very nearly with Huth's investigations.

(5) The objections to cousins marrying, so far as there is an objection, is on the ground that very few families to-day are free from some tendency to weakness along some particular line; and it is equally true of these and of all marriages that heredity takes the line of least resistance. A marriage between two healthy

cousins coming of a line free from any heredity defect is perhaps as fair as the average marriage.

(6) But only carefully selected cases of first cousins should marry, and in no case where any hereditary moral or physical defects exist.

(7) The early objections to such marriages were on religious, not scientific, grounds. Notwithstanding this, it is a significant fact that the Mosaic law permitted them.

Legal Restraint of Marriages.—Russell recently presented "A Plea for Posterity," before the Washington County (Pa.) Medical Society (*Phil. Med. Jour.*, August 27) a paper in which he cites statistics of many present sociologic conditions, and makes a plea for legal restraint of marriage among certain classes. He says: "Some would deny the right of existence, claiming that this right has been forfeited by the inferior mental, moral, or physical status of himself or his ancestors. As the existing order of things involves the visiting of the father's sins upon the children, even the most conservative must admit that the *defective has no right, either natural, moral, or legal, to produce a posterity cursed with his affliction, to be a danger and a burden to your posterity and mine.* There are, however, other fountains feeding this stream of corruption, and we can never hope to stay the tide until they are controlled through heredity itself, by *denying* to the defective the right to propagate his tainted species. These founts are alcoholism, syphilis, tuberculosis, epilepsy, insanity, and gonorrhea." He then considers these several "founts" in detail and concludes with a bill prepared by him for the legislature of Pennsylvania, with a view to securing such State laws as will prevent the issuing of a marriage license to any person "contemplating marriage unless he or she shall have received from the persons so appointed a certificate setting forth that such applicants are free from the following diseases, any of which shall be deemed sufficient cause for refusing a license: Syphilis, gonorrhea, dipsomania, hereditary insanity, true insanity or insanity resulting from vice, epilepsy, hereditary consumption or tuberculosis." He says that the State of Texas already prohibits the marriage of epileptics; Massachusetts, the epileptic, alcoholic and syphilitic; while Ohio has a similar law to the one proposed, and the same bill has been introduced in the Maryland legislature.—*Jour. Amer. Med. Assn.*

The Importance of Expert Aid in Legislation.—Sir T. Grainger Stewart, president of the British Medical Association (*American Medico-Surgical Bulletin*, August 25th), in his address at Edinburgh, said on this subject that he wished that the legislature would boldly accept the principle that as it was mainly guided by the opinions of lawyers as to legal questions, by those of soldiers in matters military, by practical seamen and engineers in matters concerning their department, so in medical questions they should look for guidance to the medical profession, and give effect to its matured opinion. Then there would be less difficulty about the question of vaccination, or that of the treatment of inebriates, or the prevention of the risks attending certain callings, such as those that expose the workers to lead poisoning or to poisoning by phosphorus; and the statute book would be enriched by further beneficent enactments which would save multitudes of lives and immensely diminish sickness and suffering.

It is the absence of this principle which is at the bottom of half the economical troubles in the world. We have seen it abundantly exemplified in the late war. If our soldiers and our sailors, our military surgeons and others had had the sole say on their absolute authority in their respective departments in this war, we should have had very little ground for the lurid horrors which, bad as they are, have been magnified out of all proportion by the shrieking of a hysterical "yellow" press. The navy, from the very nature of things, is bound to be more autocratic in its doings; and too, the navy has, as could only have been expected by those who know anything about the first principles of the science of warfare, as an inevitable consequence, fallen the largest share of brilliant success. The men of the army, regular and volunteer, taken as individuals, did splendidly, and it is to their individual qualities that the good results must be alone attributed. But the disasters which have accompanied their brilliant personal achievements are the sole result of not turning a deaf ear to all meddlesome amateurs, and leaving the entire conduct in every detail of the campaign in the absolute discretion of those whose business is warfare. And this applies to the medical department. An army that is served with medical officers who are good soldiers and just fair average physicians is far better off than one served by the pick of all the best hospital surgeons in the land who are not soldiers by training. —*New York Med. Jour.*

BOOK REVIEWS.

An American Text-Book of the Diseases of Children; Including Special Chapters on Essential Surgical Subjects; Orthopedics; Diseases of the Eye, Ear, Nose, and Throat; Diseases of the Skin; and on the Diet, Hygiene, and General Management of Children. By American Teachers. Edited by LOUIS STARR, M.D., assisted by THOMPSON S. WESTCOTT, M.D. Second Edition, Revised. Imperial 8vo., pp. 1,244. Profusely Illustrated. [Philadelphia: W. B. Saunders. 1898. St. Louis: Lewis S. Matthews & Co., 714 Pine St. Price: Cloth, \$7.00; Sheep or Half-Morocco, \$8.00. For sale by subscription.

It is but four years since the first edition of this truly magnificent work appeared. As we stated at the time, its intrinsic merits were such that it would inevitably be taken up by the medical profession, which certainly could not withhold its support from such a superior work. The appearance of the second edition has certainly justified our opinion, and we are now presented with what is practically a new work. Not only has it been revised in the true sense of the word, but it has been enlarged by the addition of fifty-four more pages of reading matter. This is due, principally, to the addition of some new articles on Modified Milk and percentage Milk Mixtures, Lethemia, and a section on Orthopedics. The advances made in pediatrics since the appearance of the first edition has also necessitated the expansion of some of the articles, which, added to the contributions made by the different contributors, have brought the work up to the latest advances made.

Without attempting an analytic review of the work, we desire to call the attention of our readers to some portions which have appeared particularly commendable. Part III., devoted to the infectious diseases, including the exanthemata, is certainly deserving of much attention, as it includes those diseases which have been looked upon as being essentially infantile in most instances. It is well written. Part VII., which deals with the diseases of the nervous system, includes many subjects, but imperfectly treated by many pediatricians, and which are of the highest importance to the physician. Such are the affections of the nervous system due to inherited syphilis, myotonia, acromogaly, insanity in children, headache, hysteria, syringomyelia and hydromyelia, Raynaud's disease, etc. In Part X. the diseases of the genito-urinary system, more especially vesical, calculus, and gonorrhea, are given that prominence they deserve. Part

XI., on orthopedics, has been necessarily curtailed to twenty-eight pages, but it is a most valuable addition which fitly rounds off a work which can be considered complete.

We profoundly regret the decease of two of the collaborators to the first edition—Dr. Charles Washington Earl of Chicago, and Dr. J. Lewis Smith of New York—two of the most noted American pioneers in pediatrics. They would certainly have done giants' work in the production of this second edition.

We must not omit a mention of Mr. W. B. Saunders, the publisher, who, by steadily pursuing a most liberal course with the medical profession, has met with that well-deserved success which has placed him in the foremost rank of American medical book publishers. The work before us is evidence of his desire to furnish the best, and the present number of the famous series of American text-books can well take rank with the best of them.

An American Text-Book of Gynecology, Medical and Surgical, for Practitioners and Students. By Henry T. Byford, M.D., J. M. Baldy, M.D., William Goodell, M.D., Howard A. Kelly, M.D., Florian Krug, M.D., E. E. Montgomery, M.D., William R. Pryor, M.D., and George M. Tuttle M.D. Edited by J. M. BALDY, M.D. Second Edition. Revised. Imperial 8vo., pp. 718, with 341 Illustrations in the Text, and 38 Colored and Half-Tone Plates. [Philadelphia: W. B. Saunders, 1898. St. Louis: Lewis S. Matthews & Co., 714 Pine St. Price: Cloth, \$6.00; Sheep or Half Morocco, \$7.00. Sold by subscription.

The names of the collaborators engaged in writing this work are certainly a sufficient guarantee of its excellence, and the fact that a revision has been made for a second edition, four years after the first made its appearance, is ample evidence of the fact that not only was the first well received, but that there existed a desire to continue it as a high standard work. This laudable object has been carried out and we can notice a vast improvement in the arrangement of the subject matter. The preparation and after-treatment for each operation has been very wisely relegated to the chapter of Technique and, in this manner, much useless repetition has been avoided. This has given an opportunity of adding much new material without materially adding to the bulk of the work.

Whilst there are 19 illustrations less than in the former edition there are many more devoted to the descriptions of operations and less to pathological specimens which, while interesting, are not by any means as helpful to the physician or surgeon who contemplates operating on a case. It is in this particular that there has been much improvement. All descriptions of operative

procedures have been carefully revised and fully illustrated, and plastic operations have been described more fully and in a much better manner, so that this part is practically new.

The various operations are so well described and delineated that nothing is left to be desired. As an instance, vaginal hysterectomy may be chosen. It is so perfectly shown and explained that a mere tyro in operative procedure, after one reading, would almost be ready to attempt this operation. It seems to be no longer the formidable procedure it was looked upon to be. And this is the impression conveyed by every page of the work. The diseases of the ovaries, medical and surgical, occupy a goodly share of attention, and justly so; and, under the present revision, will open a whole field of new things which have been made such by the researches and experience of the past few years.

We cannot go into a detailed analysis of the contents of the work. It is not only valuable as a text-book, but of the highest worth as an exponent of the experiences and teachings of the leading authorities on diseases of women in this country.

A Clinical Text-Book of Medical Diagnosis. For Physicians and Students. Based on the Most Recent Methods of Examination. By OSWALD VIERORDT, M.D. Authorized Translation with additions. By FRANKLIN H. STUART, A.M., M.D. Fourth American Edition, from the Fifth German. Revised and Enlarged. Royal 8vo., pp. 603, with 194 Illustrations. [Philadelphia: W. B. Saunders. 1898. St. Louis: Lewis S. Matthews & Co., 714 Pine St. Price: Cloth, \$4.00 net; Sheep or half-Morocco, \$5.00 net.

The fact that this work has not only passed through five German and four English editions and has also been translated into Russian and Italian is sufficient evidence of the appreciation in which it is held by the medical profession of a number of countries. It is eminently a profitable book to consult, and has been written by an author eminent by reason of his learning and his peculiar faculty of imparting his knowledge to others. Viewed in one light, the entire subject-matter of the work seems to be a very simple matter in the same manner that principles and foundations of all structures are. It is nothing but the examination of a patient. What the author tells us is the manner in which this should be done, the system which should be followed, and the reasoning which must be observed to be enabled to formulate a correct diagnosis and establish the etiology of a disease.

Not only are we given descriptions of conditions such as we find them, but the technique to be followed in order to enable us to find them is accurately described. Furthermore, the actual

conditions indicated by these symptoms are pointed out and a road blazed to enable the examiner to solve the intricate question of etiology. As a prominent physician once told us, "he teaches you how to make a post-mortem examination on a living subject." There is a thoroughness about the work which cannot but elicit admiration; and, under the careful supervision of that most excellent translator, Dr. Franklin H. Stuart, we have had presented to us in this last edition a most valuable work, a copy of which should be in every physician's library.

The author has fully revised the work for the fourth time, but has paid particular attention to the sections devoted to gastric digestion, and the nervous system. He insists again upon a most critical examination of each organ and also insists that unless the findings thus acquired are grouped together as a totality the value of all this information is null in the formulation of a correct diagnosis. He does not favor theorizing in the matter of determining a diagnosis. He encourages positive deductions and very clearly shows that such can be attained by following his methods. He does not consider the Roentgen ray as of any value in internal medicine, and, for that reason, he devotes no space to it.

In its present revised form this work is the *facile princeps* of all those on the subject which have come to our hands.

A Text-Book of Materia Medica, Therapeutics and Pharmacology. By GEORGE FRANK BUTLER, Ph.G., M.D. Second Edition, Revised. 8vo., pp. 860. [Philadelphia: W. B. Saunders. 1898. St. Louis: Lewis S. Matthews & Co., 714 Pine St. Price: Cloth, \$4.00 net; sheep or half-Morrocco, \$5.00 net.

It is but two years since the first edition appeared, and the popularity of this text-book has been such that the demand for a second one had to be met. This is a fortunate thing for the author, for it has enabled him to improve and revise his work in a manner which makes it more creditable than ever to him. One of the innovations which has been introduced is a chapter with a table on the untoward effects of drugs. A closer study of this subject would, without doubt, aid in a way to a better understanding of the treatment of cases in which a remedy has been pushed a little beyond the limits of perfect safety, and would also tend to avert many lethal results.

In the volume before us the author has added much to a further knowledge of the action of certain drugs as shown by the latest advances. Sero-therapy is fully considered and the latest positive findings are noted. This is most certainly of the highest value, as this method is destined to occupy a most prominent position in the realm of therapeutics. The latest additions to

the *materia medica* also find fitting mention. With these additions and the revision and corrections made by the author, the book is one deserving of recommendation; and, we have no doubt, will meet with that increased success which it deserves.

We shall certainly expect to see a third edition appear shortly, as the recommendations which the book has received will make it sought and its contents will make it be kept as a most convenient book to which reference may be made.

A Manual of Otology. By GORHAM BACON, A.B., M.D. With an Introductory Chapter by CLARENCE JOHN BLAKE, M.D. 12mo., pp. 398. With 110 Illustrations and a Colored Plate. [Philadelphia and New York: Lea Brothers & Co. 1898. Price, \$2.00 net.

This is an excellent, practical manual, which, as the author states, is not intended to supplant large works and treatises, but rather to be used as an introductory guide to a further study of the subject. The author has not essayed to cover the whole subject, but rather to mirror a part of his large experience in the treatment of diseases of the ear. He very justly lays great stress upon the early recognition of aural trouble as a means of preventing mastoid and cerebral troubles. In Chapter VII. he devotes considerable attention to adenoid growths, enlarged tonsils, and diseases of the nasal passages; very justly pointing out their intimate relation to the causes of middle-ear and Eustachian troubles. This is certainly a move in the right direction.

Considerable space is devoted to mastoid diseases and intracranial troubles. The author points out the great successes which have followed operations in recent years, and he very properly concludes that these conditions are not the hopeless complications which they were formerly looked upon as being. Deaf-mutism is the subject of the final chapter, and is treated in a thoroughly competent manner. Throughout the work it is interesting, and it may be readily seen that the author writes from experience. One feature which renders the book still more interesting is the large number of excellent illustrations, a large proportion of which are photo-engravings of actual cases, thus adding to the practical character of the work. The introduction by Dr. Blake, whilst short, is well written.

The Refraction of the Eye. A Manual for Students. By GUSTAVUS HARTRIDGE, F.R.C.S. Ninth Edition. 12mo., pp. 267. With 104 Illustrations. [London: J. & A. Churchill. Philadelphia: P. Blakiston's Son & Co. 1898. Price, \$1.50.

The subject of refraction of the eye is one which unfortunately is not as well understood by many who pretend to be oculists as it should be. As the author of the book before us states, no

amount of book reading or study will ever make one competent to determine errors of refraction if it be not supplemented by practically working out a large number of cases. It is only in this manner that dexterity can be acquired. On the other hand, there must be a thorough knowledge of the principles involved, in order to make the work accurate and not hap-hazard. And it is in this very particular that the manual is superior. That it is thorough is vouched for by the name of the author, and that it is good is evidenced by the number of editions through which it has passed.

The author pays quite some attention to retinoscopy. This is a method of more than ordinary superiority in many cases to which the ordinary tests for errors of refraction could not be applied, such as in young children, in amblyopic subjects, and in malingersers. It saves much time in difficult cases of astigmatism, and it also enables small degrees of the same defect to be recognized where other means fail. It is easily learned. Acuteness of vision is dealt with by the author in the same perspicuous manner; and, in fact, the whole subject of the refraction of the eye is simplified by him in a wonderful manner.

The book concludes with a chapter devoted to spectacles, regulations in army and navy, etc., and test-types. We heartily commend this manual to students and practitioners as a very useful and reliable work on the subject with which it deals.

A Clinical Manual of Skin Diseases. With Special Reference to Diagnosis and Treatment. For the Use of Students and General Practitioners. By W. A. HARDAWAY, A.M., M.D. Second Edition, Revised and Enlarged. 12mo., pp. 557. With 42 Engravings and 2 Plates. [Philadelphia and New York: Lea Brothers & Co. 1898. Price, \$2.25 net.

The second edition of Hardaway's book is certainly a vast improvement upon the first. It is really an entirely new work which has been laid on better lines and it is thoroughly up to date. The author has very wisely abandoned the alphabetical system in the consideration of skin diseases and has followed that of classification, which is certainly more advantageous to those unacquainted with the subject of cutaneous troubles. One feature upon which we desire to lay particular stress is the attention which is paid to diagnosis and treatment. Pathology is not dwelt upon to any considerable extent, and the discussion of moot points is carefully avoided. This is as it should be, for such questions find their only proper place in the larger treatises and in monographs. Among the improvements to be noted in this edition is the introduction of illustrations, which certainly always add to the value of works on dermatology.

Were we inclined to find fault, it would be with the omission

of a chapter on the anatomy of the skin, which is treated but perfunctorily in text-books on anatomy. We note an omission in the index which may prove inconvenient in case of rapid reference—*lupus erythematosus* has been inadvertently left out. But a slight defect of this kind can certainly subtract nothing from the general value of the book, which is one which will readily gain popularity upon its intrinsic merits.

The publishers have issued it in handsome form, the paper, type, and binding being in the well-known style of the Leas. We can confidently predict a large sale for this book. O-D.

The Treatment of Skin Cancer. By W. S. GOTTHEIL, M.D. 12mo., pp. 67. With 8 Half-tone Illustrations. [New York; International Journal of Surgery Co. 1898. Price, \$1.00.

This is a very interesting and succinct little monograph on the subject of cancer as it affects the skin. The author has devoted but a small amount of space to the pathology and the various theories of its causation. What is most important has occupied his attention—the recognition and treatment of the disease. Whilst giving all the methods recommended for the extirpation of the trouble, he prefers the caustic, and arsenical paste is his favorite. He has had good success with it, and yet we have had equally successful ones with the knife. There is no doubt that whatever method is adopted should be adapted to the case in hand. We would recommend a careful perusal of Dr. Gottheil's little book to all, as it will give practitioners a clear idea of the methods to pursue in cases of cancer of the skin. O-D.

LITERARY NOTES.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL:

An American Text-Book of the Diseases of Children. Including Special Chapters on Essential Surgical Subjects; Orthopedics; Diseases of the Eye, Ear, Nose and Throat; Diseases of the Skin; and on the Diet, Hygiene and General Management of Children. By American Teachers. Edited by Louis Attar, M.D., assisted by Thompson S. Westcott, M.D. Second Edition, Revised. Imperial 8vo., pp. 1244. Profusely Illustrated. [Philadelphia: W. B. Saunders. 1898. St. Louis: Lewis S. Matthews & Co., 714 Pine St. Price: cloth, \$7.00; sheep or half-morocco, \$8.00. For sale by subscription.

An American Text-Book of Gynecology, Medical and Surgical, for Practitioners and Students. By Henry T. Byford, M.D., J. M. Baldy, M.D., William Goodell, M.D., Howard A. Kelly, M.D., Florian King, M.D., E. E. Montgomery, M.D., William R. Pryor, M.D., and George M. Tuttle, M.D. Edited by J. M. Baldy, M.D. Second Edition, Revised. 8vo., pp. 718. With 341 Illustrations in the Text, and 38 Colored and Half-Tone Plates. [Philadelphia: W. B. Saunders. 1898. St. Louis: Lewis S. Matthews & Co., 714 Pine St. Price: cloth, \$6.00; sheep or half-morocco, \$7.00. Sold by subscription.

A Clinical Text-Book of Medical Diagnosis for Physicians and Students, Based on the Most Recent Methods of Examination. By Oswald Vierordt, M.D. Authorized Translation, with Additions. By Francis H. Stewart, A.M., M.D. Fourth American Edition, from the Fifth German. Revised and Enlarged. Royal 8vo., pp. 603. With 194 Illustrations. [Philadelphia: W. B. Saunders. 1898. St. Louis: Lewis S. Matthews & Co., 714 Pine St. Price: cloth, \$4.00 net; sheep or half-morocco, \$5.00 net.

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The Refraction of the Eye. A Manual for Students. By Gustavus Hartridge, F.R.C.S. Ninth Edition. 12mo., pp. 267. With 104 Illustrations. [London: J. & A. Churchill. Philadelphia: P. Blakiston's Son & Co. 1898. Price, \$1.50.

The Treatment of Skin Cancers. By W. S. Gottheil, M.D. 12mo., pp. 67. With 8 Half-tone Illustrations. [New York: International Journal of Surgery Co. 1898. Price, \$1.00.

Bulletin of the Harvard Alumni Association, No. 12. Report of the Eighth Annual Meeting, held in Boston. June 28, 1898. Imperial 8vo., pp. 64. [Boston: Published by The Association. 1898.

Principal Poisonous Plants of the United States. By V. K. Chesnut. 8vo., pp. 60. Illustrated. [Washington: Government Printing Office. 1898.

Bulletin of the Harvard Medical Alumni Association, No. 12, contains some excellent addresses, as, in fact, every report of this association issued so far. Whilst the addresses are confined to reports connected with the medical department of Harvard, they evidence not only the interest felt in their alma mater by the alumni, but further testify to their efforts to render it more efficient. The reports are of such an encouraging character that we are sure every American physician should feel more than ordinary pride in Harvard.

The Principal Poisonous Plants of the United States is a most interesting brochure written, by Mr. V. K. Chesnut and issued by the Division of Botany of the U. S. Department of Agriculture. Whilst written from a purely botanical point of view, the toxic effects of the plants and the methods of combating them are also given, and on this account it should prove of particular interest to physicians.

Un Cas de Pseudo-Hermaphrodisme is the title of a reprint giving the medical history and post mortem examination on a hermaphrodite. It appears in the *Archives Provinciales de Chirurgie* and is written by MM. R. Sorel and M. Cherot.

Statistique des Opérations Pratiquées au Mans du 1^{er} Janvier au 31 Décembre, 1897, is a brochure in which an account of the operations performed by Dr. H. Delagénère during 1897 is given. It contains much matter which is both interesting and instructive. This little brochure is reprinted from the *Archives Provinciales de Chirurgie*, published at Paris.

"Faith" is a neat engraving in colors, of the size of a cabinet photograph, issued by the Antikamnia Chemical Co. of St. Louis. The picture is a veritable gem and its execution is artistic to a high degree. We are certain that every physician who has received a copy of it will prize it. We cannot say more than by characterizing it as a beautiful souvenir worthy of gracing a desk.

Langsdale Lancet, managed and edited by Dr. John M. Langsdale, of Kansas City during the past three years, will now be under the editorial management of Dr. J. Punton, one of the former associate editors. Dr. Langsdale writes his valedictory in the September issue and Dr. Punton makes his salutation. We are sure that the *Lancet* will, under the able management of the new incumbent, continue its past successful career, and our good wishes are extended to the new editor and his associates.

105

SECRET

1. I received
2. each month
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The number of all the airplanes in the world is about 10,000, while the number of those in production is about 1,000. It is thought to be due to the fact that the process is more closely looked after.

...Prussia.—A circular
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MISCELLANEOUS NOTES.

Dr. David Clarendon Bryan, 814 Chemical Building, Eighth and Olive, respectfully offers his services to the medical profession as an expert diagnostician. Kinloch telephone A457. Hours, 10 to 11:30 A.M.

Pertussis.—In whooping cough, give children of 2 to five years the following:

R. Lactophenin..... 15 grains.
Divide into ten (x) powders.

S. Give a powder three times daily, dry on the tongue, with a draught of water.

Sanmetto Relieves Quickly in Prostatic Troubles.—To say that Sanmetto does all that could be reasonably expected of it, in all troubles of the genito-urinary organs, is not an adequate description of its therapeutic value. For it aids in any congestion more or less, and is therefore an invaluable remedy for all congestions, especially of the prostate gland, affording relief quickly.

Drake, Mo.

H. A. GROSS, M.D.,

Med. Dept. Washington University (St. Louis Med. Col.), St. Mo.

Acetic Acid in the treatment of gonorrhea. (Lancet), commenting upon growing use of this remedy, thinks that "it may cause such prostration as to render all the symptoms of carbouluria, with dry dark urine, and a constant stream of urine developed certainly resembled the effects of the acid."
Dolomol (Sodium Bicarbonate) per cent. could be employed, avoiding any danger. (Lancet).
This remedy is sold by the Pulvula Chemical Co., 100 William

MELANGE.

An Offended Osteopath.—A man, called William Smith, M.D., D.O., has brought suit against the *Medical Age* for \$25,000 damages because of an alleged libel, the editor of the journal having spoken disrespectfully of another man, named Still, who is accredited with being the founder of "osteopathy," whatever that may mean.—*Med. Record*.

A Colored Lady Doctor.—We learn from the *Fort Wayne Medical Journal-Magazine* for September that at a recent examination before the medical board of Louisiana, Dr. Emma Wakefield, a young negress, passed a successful examination. She is the first woman in the State of Louisiana to study medicine, and the first negress in America to receive a medical diploma.

Apparent Increase of Insanity in Ontario.—In a recent report of the Ontario asylums inspector, it is stated that each month of the present year has witnessed an increase over its predecessor in the number of inmates in the lunatic asylums. The number of inmates in August was 5,032, while that of July was 5,011. There are only 35 vacancies in all the asylums in the province, and 90 former inmates are out on probation, while 48 are confined in jails. The increase is thought to be due to the fact that mentally affected persons are more closely looked after now than formerly.—*Ex.*

Notification of Venereal Disease in Prussia.—A circular was recently sent by the police authorities to all the physicians in Berlin, directing their attention to the Prussian regulations for the compulsory notification of cases of venereal disease. Notification is not obligatory for all cases of syphilis or gonorrhea indiscriminately, but for those only in which, in the opinion of the doctor, secrecy might be followed by harmful results to the patient or to the community. Civil physicians treating syphilis in soldiers must report all such cases to the commander of the regiment or the chief surgeon. Surgeons who have cases of venereal disease in their practice are called upon to search out the person from whom the infection has been conveyed, and, wherever necessary, to report such person to the police.—*Med. Record*.

MISCELLANEOUS NOTES.

Dr. David Clarendon Bryan, 814 Chemical Building, Eighth and Olive, respectfully offers his services to the medical profession as an expert diagnostician. Kinloch telephone A457. Hours, 10 to 11:30 A.M.

Pertussis.—In whooping cough, give children of 2 to five years the following:

R. Lactophenin.....15 grains.
Divide into ten (x) powders.

S. Give a powder three times dally, dry on the tongue, with a draught of water.

Sanmetto Relieves Quickly in Prostatic Troubles.—To say that Sanmetto does all that could be reasonably expected of it, in all troubles of the genito-urinary organs, is not an adequate description of its therapeutic value. For it aids in any congestion more or less, and is therefore an invaluable remedy for all congestions, especially of the prostate gland, affording relief quickly.

Drake, Mo.

H. A. GROSS, M.D.,

1858—Med. Dept. Washington University (St. Louis Med. Col.), St. Louis, Mo.

Picric Acid in Eczema.—Dr. Waldo (*Lancet*), commenting upon the growing use of picric acid in eczema, thinks that "it may cause much prostration, and, in fact, all the symptoms of carboluria, with very dark urine. The unpleasant symptoms developed certainly resembled the action of carbolic acid."

Dolomol-Acid Picric 25 per cent. should be employed, avoiding any danger. Samples on request.

This preparation is manufactured by the Pulvola Chemical Co., 100 William St., New York City.

Sanmetto in Urethritis, Cystitis, Prostatic Enlargement and Enuresis.—I gladly write my opinion of Sanmetto. For two years it has given results which are perfectly satisfactory. Have had equal results with it in urethritis, cystitis and prostatic enlargement, both in children and old people. If in medicines we have specifics, then Sanmetto I regard as one in enuresis.

Bourbon, Ind.

C. M. HARRIS, M.D.

Standard Remedies.—

BENT CREEK, APPOMATTOX CO., VA., August 31, 1898.

BATTLE & CO.—*Gentlemen:* Enclosed find 25 cents in stamps. Please send me sample bottle—12 ounce—of your "Ecthol," and oblige,

E. S. VAWTER, M.D.

P. S.—I am well acquainted with your preparations, Papine, Bromidia and Iodia. Use them in all cases for which they are specified. They are now standard remedies with the profession and give satisfaction whenever used. I would recommend them to all physicians not acquainted with their potency.

Celerina in Nervous Troubles.—Jos. Wesley Malone, M.D., Blythedale, Pa., says: "I am so well pleased with Celerina that I can not refrain from citing several cases of interest. I prescribe it very frequently, and have never had it to fail yet. I used it in a case of chorea. The patient was a little girl, ten years old, suffering from an acute attack. The case had been given up by two physicians and was a very bad one. The usual remedies, phosphorus, arsenic, etc., had been used and had no great effect. I advised the attending physician, an old practitioner and a good one too, to try Celerina. He did not take much to the idea, but after urging him he consented, and the first dose gave relief. From that time the child got better, and in about four weeks was cured. It acted like a charm, and the old physician, who had never used it, was so well pleased that I am sure he will try it again. I have prescribed it in nervous prostration and have yet to find it to fail. It is pleasant to take and produces no nauseating effects, as other remedies do when taken for some time. I frequently prescribe it with Aletris Cordial, and it also goes well with Peacock's Bromides. I shall continue to prescribe it and shall watch its merits closely."

THE ST. LOUIS Medical and Surgical Journal.

Whole No. 696.

VOLUME LXXV. — DECEMBER, 1898. — No. 6.

ORIGINAL COMMUNICATIONS.

SOME CASES OF TYPHOID FEVER TREATED WITH VISKOLEIN.

BY R. F. AMYX, M.D., OF ST. LOUIS.

In reading over the literature of Viskolein its beneficial effects in typhoid fever seem to be undoubted; but certain details are wanting, which anyone inclined to be critical would insist upon before making any decided claim or drawing any positive conclusion. With this object in view, a certain number of cases were treated at the St. Louis City Hospital and favorable results were obtained. In some of the cases a complete trial could not be made, as the patients were removed before they had entered upon a true convalescence. In others it was soon determined that they were not true typhoid and the administration of Viskolein discontinued, as they were not regarded as crucial, although the good effects of the remedy were plainly apparent. It was deemed more satisfactory to detail three typical cases, two of which were treated with Viskolein, and one by the ordinary methods in vogue, as a comparison could be readily established and proper deductions drawn. The cases so chosen were not mild ones by any means. More would have been introduced, but the accounts would have made this article of inordinate length. The following are from the Hospital records:

CASE 1.—Elmer S—, aged 22, single. Admitted September 25, 1898.

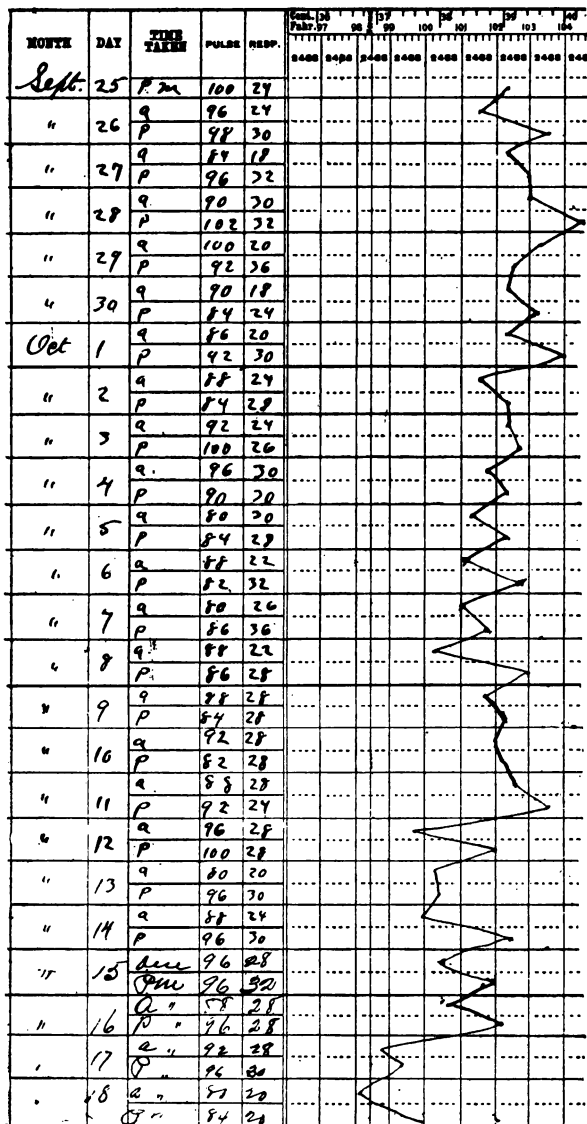


FIG. 5. Chart of Case 1.

Habits.—He smokes cigarettes, ten or fifteen daily; drinks beer occasionally.

Family History. Father died, before patient's birth, with phthisis. Mother also died with phthisis. Has four brothers and two sisters healthy. Two sisters died when babies; cause not known.

Previous Diseases.—Measles, mumps, chicken-pox, whooping-cough, malaria, and la grippe. No venereal history.

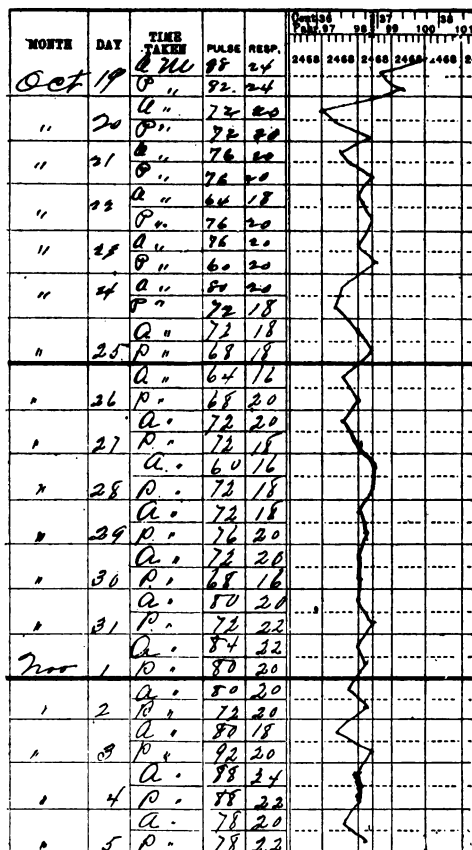


FIG. 6. Continuation of Chart of Case 1.

Present Trouble.—About September 6th he began to have diarrhea; five or six days later began to have aches and pains; no epistaxis or chill; no nausea or vomiting; had a cough which lasted for two days, and expectorated a muco-purulent sputum. Occasional nausea and vomit in the last thirty days; no diarrhea; no trouble noticed with urine. His pulse was 100; resp. 24; temp. 102.4°.

Physical Examination.—Spleen enlarged; no other physical abnormalities noticed.

Urinalysis.—Acid; clear; brownish yellow in color; sp. gr. 1030. No sugar or albumin present.

Second Urinalysis.—September 27.—Was brownish yellow color; acid reaction; slightly cloudy; $\frac{1}{10}$ per cent. albumin; Diazo reaction positive; sp. gr. 1026; granular casts present.

September 30.—Is unable to retain anything on his stomach; medicine given per rectum.

October 6.—Since October 3 patient has been able to retain food and medicine by the mouth; has been receiving quinine sulphate and bromides; is feeling somewhat better. Has complained since October 1 of pain in abdomen. Urine is medium yellow in color; cloudy; has a white flocculent sediment on standing; sp. gr. 1018; neutral reaction; trace of albumin; no sugar; doubtful Diazo reaction.

October 14.—Patient received full doses of quinine from October 2 to October 9 without any perceptible influence on temperature, which persisted at a mean of about 102° ; quinine withdrawn and temperature arose to $103^{\circ}.6$. On the 11th of October Viskolein was given and temperature fell to $100^{\circ}.3$ on the 12th and 13th. October 14.—This p.m. temperature rose to $102^{\circ}.4$. General condition about as on October 6.

October 17.—He improved slightly; morning temperature $100^{\circ}.6$; evening temperature $102^{\circ}.2$. October 18.—A.M. temperature $99^{\circ}.4$; p.m. temperature $99^{\circ}.7$. October 22.—Temperature normal since 19th; very hungry; expression good; feeling better. October 28.—Lips dry; tongue a little coated; soft toast and milk given as diet. October 31.—Patient sitting up to-day apparently much improved. November 5.—Patient sat up since October 31; doing nicely.

November 14.—Patient improved; out of bed.

The temperature, pulse and respiration chart of this case is given in figures 5 and 6, the latter being a prolongation of the former.

CASE 2.—Leona D—, aged 34, single. Admitted Oct. 24, 1898.

Habits and family history are good.

Previous History.—Has had the usual diseases of childhood. Has had malaria, pleurisy, and ulcer of stomach last September.

Present Trouble.—Patient admitted Oct. 24, 1898; says she has not been well for more than a week past; has had a feeling of malaria, headache, appetite poor, bowels irregular. Condition has grown gradually worse, and she took to her bed a few days ago.

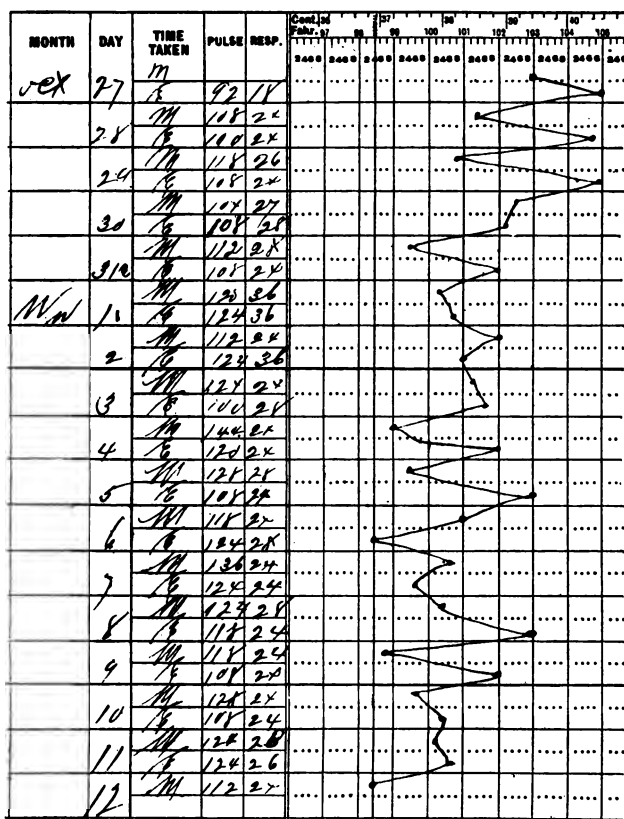


FIG. 7. Chart of Case 2.

Present Condition.—Patient is emaciated; skin harsh; is nervous; sordes on teeth; tongue coated; edges red; center brown; abdomen scaphoid; several roseolic spots over abdomen; lungs normal; liver and spleen sensitive; tenderness on palpation over right iliac region; appetite lost; bowels loose; stools pea-soup in character; heart-sounds clear; pulse rapid and weak; temperature, 105°.

Urinalysis.—Straw color; sp. gr. 1025; acid reaction; large amount of albumin present; granular and hyaline casts; Diazo reaction negative.

Diagnosis.—Typhoid fever; toxic nephritis.

Treatment.—Viskolein; stimulants; baths.

Oct. 27th.—Widal's test affirms typhoid fever diagnosis. Diazo reaction negative.

In figure 7 is given the temperature, pulse and respiration chart of this case.

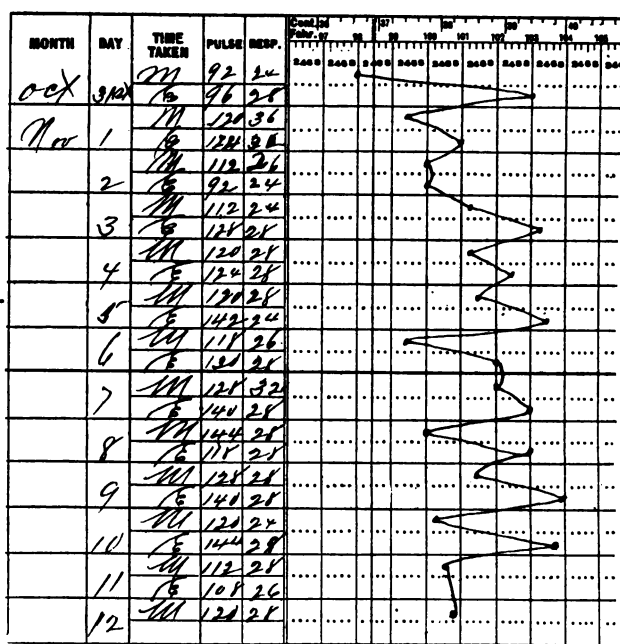


FIG. 8. Chart of Case 3.

CASE 3.—Maggie G—, aged 30, married, was admitted to the hospital October 30, 1898. This patient can neither understand nor speak English; impossible to get subjective history of any worth. Patient is married; has several children, youngest about one year old; learn from her husband that she has been sick about four weeks; has had fever, no appetite, diarrhea, etc.

Present Condition.—Patient is much emaciated, unconcious, very nervous, subsultus tendinum well marked, complexion dull

hue, expression listless, respiration rapid, some cough. On auscultation moist râles heard all over chest. Heart weak, slight functional murmur audible, pulse rapid and weak. Over abdomen about a half dozen roseolar spots visible, tenderness on pressure over right iliac region. Liver and spleen sensitive, coating on tongue, sordes on teeth, bowels loose. Blood examined, plasmodia not found.

Urinalysis.—Color, straw; reaction, alkaline; sp. gr. 1010; albumin present; no casts; Diazo reaction negative.

Diagnosis.—Typhoid fever, bronchitis complicating.

Treatment.—Calomel, enemas, stimulants, cold sponging.

A critical examination of the histories and charts will convey much more information than appears upon the surface, and the examination of the patients makes this good impression still more accentuated. Thus when we look at Case 1, we find that under quinine the mean temperature was 102°, rising to 103°.6. As soon as Viskolein was given it fell to 100°.3. In a week the temperature fell considerably, being slightly subnormal. On the next day it became normal and remained so. Appetite declared itself and the patient was on the fair road to a good convalescence. This went on steadily and yet, at one time, it seemed that the high temperature would prove fatal.

In Case 2, directly Viskolein was administered, the temperature dropped from 105° to 102°.2. A further drop was observed to 99°.5, the evening rise never going beyond 102° except on two occasions when it reached 103°. Finally it settled down to 98°.5 as it had done on several occasions in the morning. The pulse and respiration also dropped noticeably, and with these advantages the patient was enabled to eat and did not exhibit the evidences of the process as markedly as did the next case which received no Viskolein and which still remains far from being re-established to even an encouraging convalescence.

A glance at the chart of Case 3 will show a peculiar temperature curve. With one exception, the evening temperature has been 103° or more, the morning having never fallen below 99°.5, and this on two mornings only. The average being 101°. The pulse and respiration have been very high and the consequent emaciation proportional. The patient is in the typical typhoid state and gives no encouraging sign of rallying.

These are merely selected cases for the purpose of comparison. The most unpromising cases are chosen upon whom to try Vis-kolein, and of these the two worst were selected. The Diazo and Widal's tests were used on all, the urine carefully examined and every means employed to render a report of them satisfactory. With these facts before it, the medical profession will be enabled to draw conclusions unaided. And, when it is considered that the most crucial test was employed, i. e., treatment in a public hospital, the favorable conclusions to be drawn will only be more heightened, for there is no doubt whatever that in private practice much better could be obtained.

Mississippi Valley Medical Association.—The following officers were elected at Nashville of the Mississippi Valley Medical Association: President, Dr. Duncan Eve, Nashville, Tenn.; First Vice-President, Dr. A. J. Ochsner, Chicago, Ill.; Second Vice-President, Dr. J. C. Morfit, St. Louis, Mo.; Secretary, Dr. Henry E. Tuley, Louisville, Ky. (111 W. Ky. St.); Treasurer, Dr. Dudley S. Reynolds, Louisville, Ky. Next place of meeting, Chicago. Chairman of Committee of Arrangements, Dr. Harold N. Moyer. Time of meeting, October, 1899, date to be determined by the executive officers and the chairman of the Committee of Arrangements.

Fashion and Its End.—Fashion is a twofold movement. In its large evolution a type dominates for some generations or so, with modification so slow as to be unperceived, the result of social conditions prevailing in the civilized world, forming the drift that is referred to above that is not controlled; in its special action it is a variation from season to season, and from day to day, a constant individual creation on the same general theme. This second movement is the one that is popularly recognized. It is due to woman's present social status, which forces her to constant effort to set herself off from other women, or to emulate other women, by her dress, as men are forced to emulate other men or to distinguish themselves from the mass of men by force or by intellect. The end pursued by both is singularity, that is to say, distinction from others, and with women distinction by beauty.—From "The Woman's Paris," by Ada Cone, in the November *Scribner's*.

DR. MAGALHAES' VIEWS ON LEPROSY REJECTED BY SOME SOUTH AMERICAN AUTHORITIES.

BY ALBERT S. ASHMEAD, M.D., NEW YORK.

Here is a synopsis of a most remarkable paper by Dr. José Lourenço de Magalhães, Rio Janeiro, Brazil. It is entitled "Consideration on Leprosy in Brazil." The views therein expressed were destined to be submitted to the International Lepra Conference, Berlin. They do not, however, for some inscrutable reason, appear in the transactions of that Conference.

The author thinks that leprosy is closely related to gout: in both diseases defects of nutrition are, according to him, the etiological factors. In leprosy we have to do with an excess of fat and carbohydrates in the nutriment (especially fish, common pork). As to the bacillus, the author denies that it has any importance, at any rate, in the development that leprosy has taken in Brazil; the role of the bacillus has been purely negative, just as if it did not exist at all. Without any violent measures leprosy has disappeared from certain districts of Brazil, simply in consequence of hygienic measures. The author is so fully convinced of the heredity of leprosy, that he exacts celibacy from lepers. On the other hand, he denies the necessity of a compulsory isolation of the patient, because he does not know a single case of contagion of leprosy that is free from question. But in order to mend the social position of poor lepers, who, in Brazil, live together in many regions, in self-chosen, poor and dirty colonies in the neighborhood of villages, who live of beggary, or lead the life of tramps, the author proposes to create pleasant and hygienic colonies on the part of the State, in which lepers will be received gratuitously and at their express desire, where they would be taken care of, and could occupy themselves usefully. The author winds up with the repeated expressions of his conviction that leprosy is not contagious, at least not in Brazil!

In regard to all the details (especially the rich statistical material which the author has gathered or collected in part by traveling) we must point to his work, which embraces 41 pages in quarto. It represents the French résumé translation of two Portuguese works of the author (*La Lèpre au Brésil*, 1882; and *La Lèpre, est elle contagieuse*, 1893) which was destined for

the International Lepra Conference, 1897, of Berlin.—*Dermatogisches Centralblatt*.

And here is what is said by one of the foremost and most authoritative leprologists of South America, Dr. Roberto Azuero, the physician in charge of the oldest leper asylum on this hemisphere (that of Caño de Loro, near Carthagena, Republic of Colombia), and who as Commissioner of Bolivar, to study the Carrasquilla serum in Carrasquilla's Institute of Bogota, was brave enough to throw doubts upon Carrasquilla's serum as a cure in Carrasquilla's own country, when it was enthusiastically sustained by the government. In his report, of which I received from himself a copy some time ago, he speaks of the contagiousness of leprosy in Colombia. It is nearly inadmissible that there exists any essential difference or any difference whatever in the conditions and form of the disease in Brazil and Colombia; in fact, the boundary between the two is only a political one.

Dr. Azuero says: "If leprosy is a disease of infectious nature there is no doubt but that it is contagious, and this is the opinion which I profess as an expression of conviction derived from observation, from study, and from the careful investigation of the personal leprous antecedents. My opinion is that leprosy is contagious, but not in the same degree as diseases of such active virulence as the eruptive fevers, typhoid fever, cholera, tuberculosis; and I believe that for the contagion to take place there is necessary a contact, which facilitates the entrance into the healthy organism of Hansen's bacillus or its toxines, be it through the mucous passages or through erosions of the skin, which offer an easy access to the infection.

"In the first case it takes place directly from the sick to the well, by the intimacy of life, by prolonged contacts, by the community of domestic utensils without proper precautions of asepsis, or by the constant intercourse between sick and well.

"When a healthy individual for a long period holds intercourse with a diseased one, an occasion for infection presents itself readily, either because the healthy person makes use of the bowl, of the spoon, or any other utensil used by the diseased, or because he puts his lacerated skin into contact with that of the diseased, or some of his secretions, offering thus the occasion for the infectious principle to effect an entrance. Hence

*Translated from the Spanish.

the case, a very frequent one, of individuals who have lived many years with lepers and have remained immune, while there exists also the opposite, that is, that one single contact for a short moment has been sufficient for the infection to take place and the contagion to become manifest. I want to say this, that the moment is a single one, and that when it presents itself a natural law is accomplished, necessarily, just as a grain sprouts when it is placed into conditions required by the biological laws of its evolution.

“In the second case, it is sexual intimacy that propagates and perpetuates the terrible scourge. It is a thing worthy of attention that many women feel no horror for leprosy, and give themselves more readily to a leper than to a healthy person; and strange to say I have never seen that the woman who gave herself to a leper was infected, while I have observed many cases of perfectly healthy individuals, without leprous antecedents and without visible cause for becoming lepers, who have been infected through having sexual relations with a woman who had had them with a leper. Does the vagina convert itself into an inert receptacle, whence, without causing harm to the woman, there issues an irreparable sentence on the unfortunate who has penetrated into that cavern of death? Possibly it is so, and it is generally believed, and an almost evident fact, that the woman who has given herself to a leper is a street walker, who lavishes leprosy over those who incautiously fall into her clutches.

“One of the most necessary means for stopping the propagation of the scourge, apart from the sequestration of the diseased and of the foundation of small departmental lazarettoes, like that well-established and well-directed one which exists in the department of Bolivar, would be the regulation of prostitution, or its permanent persecution, if the State does not permit to regulate and legitimize the exercise of this infamous profession.

“In Santander, we cannot attribute to any other cause but contagion the lamentable proportions which leprosy has reached. There, under the epidemic form, it has struck whole villages, which to-day are veritable leproseries, such as Toledo and the Valley of Labateca, in the province of Pamplona.

“We record only in Loro the following case of mediate contagion: Hermogenes Avila, son of the water-carrier of the

lazaretto, a boy of 17 years, who sometimes replaced his father in his work, became intimate with a healthy girl who had come as a little girl to the lazaretto, accompanying her leprous mother. This girl lived maritally for six years with a leper, and during this period she had relations with Hermogenes, who became a leper in less than a year, and died most miserably in less than six years. The woman left the lazaretto perfectly healthy, before the young man died, and afterwards nothing was heard of her.

“The very possible circumstance that this is the most evident and most effective kind of contagion is one reason more for imposing, *unflinchingly*, isolation of lepers, with absolute separation of the sexes, and to supervise *actively and severely* prostitution; and I believe that the *only* means for solving the problem is to found lazarettoes, whither will flow the diseased of limited districts. The only practical and realizable thing in this matter, would be for every department to attend to its own contingent, with a subsidy from the national government. The department of Bolivar has come up very satisfactorily to this social necessity, and its lazaretto, although not as perfect as it might be, is nevertheless the only one which deserves to be so called in the whole territory of the Republic.”—(Consideraciones Generales sobre La Lepra, etc. Por el Dr. Roberto, Aguero Delegado del Institute Carrasquilla para implantar el procedimiento Carrasquilla en el Lazaretto de “Cano de Loro,” Departamento de Bolivar. Cartagena, 1897.)

There are some authorities of his own country entirely antagonistic to Dr. Magalhães. Among these authorities I mention only Doctors Havelburg and Lima, of Rio Janerio, and Moreria, of Bahia.

A New Degree for Lord Lister.—On October 8th the new Thompson-Yates Laboratories of Physiology and Pathology at Liverpool were opened by Lord Lister, who delivered an address upon the unity of science and practice and the need of raising our practice to accord with the accuracy and certainty of science. Upon the conclusion of his address he was the recipient of the honorary degree of doctor of science of the Royal Victoria University.

CORRESPONDENCE.

DO NOT LIGATE THE FUNIS.

Editor JOURNAL.

Dear Sir: While attending lectures last winter I was somewhat amused at our professor for his cautions in telling how to ligate the umbilical cord, and he advised us to purchase one of Kellogg's instruments to apply a rubber band around the stump. I have practiced medicine since March, 1882, and since the last ten years I never ligate the stump or cord unless the child is premature or in some way debilitated. After cutting the cord, say two inches from the navel, I strip it, depriving it of all the blood and Wharton's jelly—strip it until it is reduced one-half in size and it will not bleed a drop. I never have an ulcer or sore navel to contend with. After this stripping I have the babe washed and apply a pad and bandage rather tightly.

Broken Bow, Neb.

W. R. PENNINGTON, M.D.

NERVOUSNESS.

Doubtless doctors know that a person who is nervous or inclined to hysteria, is in a serious condition; but they make a mistake when they imagine that every one understands the possibilities of such a state. The following true sketches are addressed to the doctors who do not wish to be cruel:

A woman working in a hotel had an attack that bordered upon pneumonia. The mistress and her husband, and all the household, felt sorry for the sick woman. She was moved into a room that could be warmed, and was well taken care of for a few days. The writer called about 11 o'clock on the third morning and found this sick woman cold and neglected—no fire in the stove, no breakfast. The first kind inquiry was answered by a smothered storm of tears. Inquiry as to the sudden change from kindness and care to coldness and neglect evoked the information that "the doctor says it is only nervousness."

Instead of pneumonia it was a case of nerves, and the patient was to be left cold and faint and unwashed till she gained strength by some miracle to go down three flights of stairs and dish up her own meal in a hot kitchen. The doctor when ques-

tioned said: "Yes; she is in a serious state; nervous system all run down; I told them so." This was not quite the same as the report of the doctor's opinion.

The next case was a school girl, away from home in a boarding school. At the beginning of her indisposition teachers and pupils were kind and attentive; but one day the writer on her way to the sick girl's room was waylaid by one of the teachers who said: "Miss So-and-So says Mary must be left to herself. The doctor says she is not sick, only hysterical. You need not bother to go to her any more." Not being under madam's control, the writer went to the girl's room, and arrived just in time to keep the child from crying herself into a fever. The sudden change from care and kindness to neglect filled the child's mind with fears of all sorts.

This doctor when questioned was surprised to find that madam had placed such a construction on his remark. He had said she was nervous. "It was no real illness."

Perhaps some day—thanks to public libraries, where every child may have access to books concerning all manner of medical subjects—every one will have a correct understanding of the medical meaning of "only nervousness." For the present, the doctor who does not wish to be cruel should be careful how he uses the expressions "nervousness" and "hysterical." In common parlance they mean selfishness, foolish fear about one's health, a vain wish to create a sensation and "make a fuss."

C. R. B.

ETHER NARCOSIS.

Doctors "know a sight," of course, but they cannot know the true story of being "put to sleep" with ether unless they have experienced it, or will condescend to learn of some one who has gone through the ordeal. Take this advice from one who knows.

If that dreadful ether mask must be used, for humanity's sweet sake give the patient some idea of the mode of administering the ether; charge him to keep the eyes closed (to close them before the mask is adjusted, and keep them so). One of the horrors of the performance consists in seeing this strange thing pressing so near the eyes. In the semi-conscious state, if the eyes are open, the mask assumes the power and appearance of a dreadful "something" that is sure to smother one and cannot be escaped from.

A firm and friendly clasp of the patient's hand and a reassuring voice addressed to the patient are a great consolation. Try to assure the patient that he is still in touch with the world and a friend is close to him remembering him.

As soon as possible after the operation the patient's nose and throat should be thoroughly sprayed with diluted alcohol or witch hazel, or even pure warm water in abundance. Wash the face and neck and all the roots of the hair near it. The water should be warm, or some alcoholic water used to avoid taking cold. Spray the passages of the nose and throat also. Also have the patient inhale pure air into the lungs.

Doctors and nurses are apt to forget these "trifles," and the inexperienced patient does not think of them, and so frequently the ether lingers for hours or even days in and about the person.

B.

Alvarenga Prize of the College of Physicians of Philadelphia.—The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about one hundred and eighty dollars, will be made on July 14, 1899, provided that an essay deemed by the Committee of Award to be worthy of the prize shall have been offered.

Essays intended for competition may be upon any subject in medicine, but cannot have been published, and must be received by the Secretary of the College on or before May 1, 1899.

Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author.

It is a condition of competition that the successful essay, or a copy of it, shall remain in possession of the College; other essays will be returned upon application within three months after the award.

The Alvarenga Prize for 1898 has been awarded to Dr. S. A. Knopf, of New York City, for his essay entitled: "Modern Prophylaxis of Pulmonary Tuberculosis and its Treatment in Special Institutions and at Home."

ST. LOUIS

Medical and Surgical Journal.

A. H. OHMANN-DUMESNIL, A.M., M.D.,

Editor and Proprietor.

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EDITORIAL.

AN OPEN CHALLENGE.

William M. Warren, the publisher of that sterling medical journal, the *Medical Age*, of Detroit, writes an open letter to his readers which we reproduce in full, as being more pointed than we could hope to make it. He writes as follows in the *Medical Age* of October 25, 1898:

To the readers of *The Medical Age*:

Dr. William Smith, Osteopathist, has a grievance against *The Medical Age*, and demands \$25,000 damages.

The ground of his plaint is an editorial reflecting discredit on Dr. Smith, on the *Journal of Osteopathy* and on osteopaths in general. The subject is set forth editorially in *The Medical Age* of September 26, 1898, and a reprint of this editorial will be sent on application.

I need hardly assure any one familiar with the past record of the *Age* that William Smith, M.D., D.O., has a large contract on his hands. His quest for damages is likely to prove futile, and his armor will need patching if it is to withstand the hard legal knocks that will be showered and battered upon it before he touches one dollar of the *Age's* money!

Pray do not fancy, however, that William Smith and Osteopathy are to be lightly dismissed with the contempt that they merit. There is no use in blinking the fact that the lack of efficient organization amongst reputable medical men has permitted the whole brood of quacks and charlatans to flourish apace. By the strangest irony of fate, Osteopathy, in some respects the most grotesque of medical aberrations, has well illustrated Lecky's dictum, that a small but cohesive and determined minority can exert a political influence wholly disproportioned to its real weight and numbers.

In Kentucky, thanks to the resolute leadership of a handful of physicians, ably guided by Dr. Mathews, the osteopaths have been driven from the State. Not so, however, in Missouri or—I blush to say it—in Michigan, Vermont, North Dakota, South Dakota, Illinois, Colorado and North Carolina (*American Medico-Surgical Bulletin*). In these more lax and indulgent communities Osteopathy boasts its numerous followers, its “schools of instruction,” its periodicals of propaganda, its political influence in legislation, its shameful immunity from the penalties by which society properly seeks to rid itself of quackish parasites.

Emboldened by its success, Osteopathy now enters the courts and offers battle to a medical journal which disputes its respectability. The challenge is accepted. In the interest of science, in defense of ethical and honorable medicine, in defiance of a quackery that constitutes a deep disgrace to an enlightened age and a stain on the communities which give it shelter, the *Age* proposes to maintain its position and to continue its denunciations of the ignorant pretenders who fatten on the sufferings of the credulous and confiding.

Having put my hand to the plow in this uncompromising fight with quackery, I beg leave to assure you that there will be no turning back.

I need not point out the bearings this contest must have on the interests of legitimate medicine, and I earnestly hope that the *Age* may count on the moral support and commendation of the entire profession.

Faithfully yours,

WILLIAM M. WARREN.

We must plead guilty to the fact that Missouri, the home of Osteopathy, has not been able to rid itself of the incubus, on account of the support the governor accorded to it. The publisher of *The Medical Age* has thrown himself in the breach to rid Michigan of this noisome effluvium which is slowly spreading itself over the legitimate medical profession of that State. The new prophet who has established his Mecca at Kirksville, Mo., doubtless expects to spread his doctrines over the whole country. We are sorry that he can hardly convince intelligent men with

such an explanation as the following, which we find in the *Medical Standard*, which gives it as the unadulterated emanation of the head of the school of Osteopathy:

"Osteopathy has been technically defined as: 'That science which consists of such exact, exhaustive and verifiable knowledge of the structure and functions of the human mechanism, anatomical, physiological and psychological, including chemistry and physics of its known elements, as has made discoverable certain organic laws and remediable resources, within the body itself, by which nature under the scientific treatment peculiar to Osteopathic practice, apart from all ordinary methods of extraneous, artificial or medicinal stimulation, and in harmonious accord with its own mechanical principle, molecular activities and metabolic processes, may recover from displacements, disorganizations, derangements and consequent disease, and regain its normal equilibrium of form and function in health and strength.'

"There! If that does not satisfy the Philistines the progress gained by the advancement of science has indeed been futile. True, the definition is somewhat involved—possibly by reversing it the words would read more clearly—but then we must consider the dignity attending so momentous a theme, and the necessity of a diction commensurate with its solemn import to mankind."

We leave our readers to draw their own conclusions. We could hardly add much more that would interest them. Besides, the new science (?) is such that whilst it cures, its prophets seem to be afflicted with a marked hyperesthesia of the cuticle, possibly brought on by an atrophy of the cutaneous envelope.

THE PURE FOOD AND DRUG CONGRESS.

It had been supposed by some that the agitation of the movement to obtain the enactment of federal laws to prevent the adulteration and improper branding of food, drugs and liquors had been abandoned. Far from such a course having been adopted, the National Pure Food and Drug Congress seems to be more active than ever, and steps are already being taken to secure the passage of the Faulkner-Brosius bill (to prevent the inter-state traffic in adulterated and misbranded food products) now before Congress. The congress, through its corresponding secretary, draws attention to the following points:

1st. Adulteration and misbranding exists to an alarming extent, and injures our trade and commerce at home and abroad to the extent of hundreds of thousands of dollars annually.

2d. Representative men appointed by thirty governors of

States, twenty-one national organizations, six departments of the general government and eighty-six chambers of commerce, trade, manufacturing, agricultural, scientific and labor organizations, gathered in Washington to consider the question and adopted the proposed bill.

3d. Every one is requested to assist the work, by writing their Senators and Congressmen and urging immediate action; by signing petitions to Congress and sending them to the secretary of the National Pure Food and Drug Congress, Washington, D. C., and by urging their friends to do the same, and by organizing pure food and drug clubs all over the country.

4th. All scientific, agricultural, labor, manufacturing and trade organizations interested in the production, manufacture and sale of food and drug products are entitled to representation in the approaching congress and are requested to send delegates; the railroads will give excursion rates to Washington to delegates and visitors to the congress, and reduced hotel rates have been arranged for, and that all necessary information upon the subject will be promptly furnished by application to the Corresponding Secretary, Alex. J. Wedderburn, P. O. Box 464, Washington, D. C.

We are sure that there is not a medical man in this country who is not heartily in favor of this bill, and all who can do so should certainly attend the meeting of the congress to be held in Washington, as announced in another part of the JOURNAL. It is certainly a duty which the medical profession owes itself and its patients to see that pure drugs and pure food are afforded their patients. It is no less a duty for hygienists to devote their attention to this question, which has become a burning one.

Of course we will not take into consideration the moral aspect of the question. It admits of no question. The whole problem lies in the method to be adopted to be able to successfully combat the moral turpitude of such individuals as are so lost to all sense of shame and honor as to endanger the health and lives of their fellow beings for the purpose of gaining a few dollars. That this lack of honor and conscience is not particularly characteristic of this country is evidenced by the fact that in every country in Europe the strictest laws prevail for the suppression of this unholy traffic. To endeavor to bring individuals guilty of the fraud of adulteration to a true sense of their wrongdoing

by moral suasion is an impossibility. They must be punished, and the most severe form which can be adopted is to mulct them in heavy sums. The most dire punishment which can be wreaked upon such individuals is to fine them heavily and collect the fine.

Every physician should exert all his influence to exact a promise from the Congressman in his district to cast his vote for the anti-adulteration bill and to obtain his representative in the Legislature to second his efforts. In this manner only can the strength sufficient to obtain proper legislation be obtained. The press should also be enlisted in the cause and its support obtained. A little organized effort would be sufficient to accomplish this end, and we are certain that the result would culminate in a marked reduction in the number of cases of sickness and death. Good food will make better citizens and pure drugs preserve their health and diminish the death rate, which is daily casting more discredit upon the knowledge and ability of the medical profession.

An Unwarranted Arrest.—In the early part of November a man was shot on the streets of St. Louis, and Dr. W. E. Anglinbaugh, who was passing by at the time, hearing a cry for a doctor, ran to the assistance of the wounded man and administered a hypodermic injection of strychnia. The police coming to the scene at this time arrested him on suspicion of having committed the crime, despite the protests of persons who were present. He was arrested and placed in confinement in a loathsome cell and denied all communication with persons on the outside. It took but a few hours for him to regain his freedom and, of course, he has no recourse at law. Such summary and brutal treatment on the part of the police will only lead to the refusal of tendering aid on the part of physicians. Some remedy for such a condition of affairs should certainly be found and applied.

MEDICAL PROGRESS.

MEDICINE.

Blackwater Fever and Hemoglobinuria.—Dr. R. U. Moffat, Principal Medical Officer Uganda Protectorate, writes to the *British Medical Journal* (No. 1969, Sept. 24, 1898):

The recently expressed opinion of Professor Koch that hemoglobinuria (blackwater fever) is only another name for quinine poisoning is one calculated, I am afraid, to do much harm. Such, at least, is my opinion, believing, as I do, that with quinine, and quinine alone, can we combat the disease with any hope of success.

Speaking with all due humility and respect, I must confess that I think Professor Koch should have kept his theory to himself until he had absolutely proved its truth beyond a doubt.

It is difficult enough at all times to get patients to take quinine properly. Anyone who has had much experience with malarial patients has heard such objections as these: "It (quinine) makes me deaf," "Gives me a head," "Upsets my stomach," "Nasty taste," etc.

A new terror now awaits the unfortunate medical man when he tries to treat his patients with quinine. Koch's theory will be thrown in his teeth; and should his patient die after taking quinine and developing blackwater fever the doctor will have to incur the odium of being the cause of the fatal termination. It is a subject of the greatest interest to all those exposed to malaria, and I may mention that almost every man whom I met in East Africa during the last few months questioned me eagerly about it. The pernicious results of Professor Koch's theory on the lay mind are already manifest. One man stationed in a very unhealthy part, and much troubled with fever, informed me that in future he intends to have nothing to do with quinine. His future history will be interesting; and it is comforting any way to think that his folly may perhaps be of service in the cause of science, since he is practically offering his constitution as an illustrative case. Two leading London papers have had articles on the subject, so that Professor Koch's theory is being spread widely. This, to my mind, is a serious thing. Professor Koch

may be right in saying that quinine poisoning causes hemoglobinuria. I do not possess sufficient knowledge to criticise that statement. This much I will say: that after seven years in Eastern Equatorial Africa, during which time I have treated many hundreds of cases of malaria, I have never seen a man die of fever when quinine was given properly and early in the case. The fatal cases, whether complicated with hemoglobinuria or not, have all been those in which for some reason quinine has not been administered, or was given in very small doses, or else resorted to only when the case was practically hopeless.

Of blackwater fever I have seen but little, for our European population in Uganda has up to now been small, and as far as my experience goes the disease does not occur among natives. Out of nine cases of blackwater fever which I have actually treated myself two were fatal; in both the administration of quinine was neglected until too late. All the cases which recovered were treated with heroic doses (30 grains in twenty-four hours), and the attack lasted four days, the hemoglobinuria subsiding gradually. In the other cases, in which much larger doses were administered (60 to 120 grains in twenty-four hours), the hemoglobinuria only lasted from twenty-four to thirty-six hours, and stopped quite suddenly.

In ordinary cases of malignant tertian fever I have pushed quinine until I myself had begun to think that the limit of safety had been reached, and that the patient was well-nigh poisoned with the drug, but never in such cases have I seen hemoglobinuria supervene. Speaking in the light of much experience, I can only say that my humble opinion is that there is only one treatment for malaria: quinine, more quinine, and yet more quinine.

Heredity.—Dr. A. L. Benedict, in an article on this subject in the *Medical Times*, July, 1898, emphasized the following points:

1. Much of what is commonly ascribed to heredity should properly be credited to infection, environment, or even chance.
2. True heredity deals with general and acquired traits rather than with disease, which is essentially foreign to the organism.
3. On account of the vast number of ancestors involved, the introduction of fresh blood by intermarriage, and the crossing of hereditary tendencies from one sex to another, there is, on the

whole, a tendency to reversion to general characteristics and to purification from taints.

4. A disease, to be hereditary, must depend upon some intrinsic physiologic or anatomic abnormality, and not essentially on infection; if it manifests itself before the period of reproduction, the tendency must disappear either with the destruction of the family or by the superior force of the normal tendencies; if it does not interfere with reproduction, it is amenable to hygienic precautions.

5. The only intelligent knowledge of heredity must come from a close study of genealogy, carried on impartially and without the present unworthy incentives.

THERAPEUTICS.

The Chemical Relations of Remedies in Scientific Therapeutics.—We seem now to stand upon the brink of a new era in therapeutics. We look to organic chemistry to furnish us with the active principles of tissues and serums, as it has given us the active principles of vegetable drugs. As the active principles of all plants have not yet been isolated, it need be no wonder that in a new field and dealing with complex animal tissues, this problem, for most substances, remains unsolved. A beginning, however, has been made. The efficacy of orchitic extract depends upon the presence of an organic crystalline substance called spermin, which exists in combination with hydrochloric acid. The active principle of the thyroid gland is believed to be the substance isolated under the name of iodothyrim. In the same way the antitoxins, in so far as they have been discovered, may be looked upon as the active principles of the immunizing or curative serums. Schaefer and Oliver have obtained from the medullary portion of the suprarenal bodies an organic principle which has a powerful action upon the heart, voluntary muscles and peripheral arteries.

The serums obtained from animals rendered artificially immune, contain antitoxins, and have proved of more value than those from animals naturally immune to certain maladies. The typic instance of the success in this form of therapy is diphtheria antitoxin. The wonderful reduction in the mortality from diphtheria which this preparation has effected cannot be gainsaid.

Every physician should seriously debate in his own mind whether he has done his duty in a case of diphtheria if he has neglected to take advantage of the immunizing and curative properties of diphtheria antitoxin. As diphtheria is such a wide-spread disease, every reason, humanitarian and sanitarian, as well as scientific, should combine to make us welcome this important advance in the treatment.—DR. JOHN V. SHOEMAKER (*Journal of the American Medical Association*, September 24, 1898).

The Use of Iron Subcutaneously.—Birgelen, of Penzoldt's clinic (*Munch. Med. Woch.*), says that there are a great number of cases where iron is indicated, but where it is impossible to give it by the mouth. Subcutaneous injections were used by the author in four cases—a ten-per-cent. watery solution of ferrum citricum oxydatum, but later a similar solution of ferrum citricum ammoniatum. Only ordinary precautions were used, and the injections were made in the arm. The solutions were sterilized before being used, and none older than ten days were made use of. Slight signs of local irritation appeared, especially when the first-named salt was used. In the first case the good effects were clearly shown by this method of treatment; in the second the improvement was not so marked; the third failed entirely to respond to the treatment, while the fourth had to be stopped on account of the formation of abscesses.

The writer thinks that the value of the treatment, despite the failure encountered, cannot be denied, and that only when treatment by mouth fails should it be resorted to.

Grindelia Robusta in the Treatment of Cardiac and Pulmonary Affections.—Huchard remarks that, in cases of emphysema, grindelia facilitates the respiration and expectoration. In simple hypertrophy of the heart and in dilatation it has all the advantages of digitalis without any of its drawbacks. It relieves pulmonary congestion and the palpitation associated with cardiac hypertrophy, emphysema, asthma, and incipient tuberculous disease. He gives the following formula:

R. Tinct. of grindelia.....	30 parts.
Tinct. of convallaria.....	10 parts.
Tinct. of squill.....	5 parts.

M.

Sig. Fifteen drops three times a day.

—*Louisville Med. Mo.*

Leucorrhœa.—

℞ Acidi tannici..... ℥vj.
 Glycerini ℥xvj.

M.

Sig. One-half ounce to one pint of tepid water. Inject for five minutes into the vagina night and morning.

℞ Cupri sulphatis,
 Zinci sulphatis,
 Alum. sulph āā ℥iss.
 Glycerini..... ℥vj.

M.

Sig. Injection.

℞ Acidi borac ℥j.
 Aq., tepid Oj.

M.

Sig. Injection.

Heat, either in form of actual cautery, or in that of water heated from 120 to 140° F., is a very excellent hemostatic under certain conditions. Demonstrations of the value of the actual cautery are seen in the operations for hemorrhoids with the clamp and cautery. In large oozing surfaces compression with towels in hot water is an excellent means of stopping capillary hemorrhage.—*Louisville Med. Mo.*

PHYSIOLOGICAL AND PATHOLOGICAL NOTES.

Different Forms of Leucocytosis in Children.—Engel has written an article on the different forms of leucocytosis in children (*Berl. klin. woch.*). In children of good health below one year in age the blood contains such a small number of polynuclear neutrophilic leucocytes that it frequently offers a conclusion as to the age of the child. The eosinophiles vary from 7 to 8 per cent., while of the large lymphocytes with round lobulated nuclei there are from 5 to 10 per cent. In pneumonia the polynuclear neutrophiles may reach their highest, 92 per cent., and up to the crisis the eosinophiles are absent. In congenital syphilis the absolute number of leucocytes was increased, but this number was mainly in small lymphocytes, the eosinophiles were increased to 14 per cent., a few nucleated red corpuscles were present, and always normoblasts and megaloblasts; Elnich's myelocytes were frequent. Certain complications, as suppuration of the ear, increased the polynuclears. In measles at times

the polynuclears fell with the fever.—*The Dominion Medical Monthly*.

The Minute Anatomy and Physiology of the Biliary System.—Dr. Flutterer (*Medicine*, July) from his own researches draws the following conclusions:

(1) The roots of the bile-duct system are inside of the liver cells, as intra-protoplasmic channels, which form complicated networks and which closely surround the nucleus.

(2) An intra-nuclear system of bile channels communicating with the intra-protoplasmic channels does not seem to exist.

(3) The intra-protoplasmic channels are in direct communication with the bile-capillaries.

(4) Under normal conditions the intra-protoplasmic channels are not visible, and if stagnation of bile distends them and makes them visible as net-works, this happens at the cost of the protoplasm and the life of the cells.

(5) While the protoplasm under such conditions perish very quickly, the form and structure of the nucleus remain intact for a long period.

(6) The bile is secreted in the form of minute drops, which first appear around the nucleus.

(7) We should now use the terms *bile-ducts*, *bile-capillaries*, and *bile-channels*.

The Physico-Chemical State of Caseinogen in Milk.—Dr. David Fraser Harris (in the *British Medical Journal*, September 17th, 1898) states that he has reached the following conclusions as the result of study of this topic:

(1) Caseinogen is not in solution in milk-plasma, but

(2) It is present along with fats in both the globules and the particles in a state of minute subdivision.

(3) The globules contain a maximum of fat and a minimum of caseinogen.

(4) The globules are not pure fat or oil and the particles are not pure caseinogen. In nature casein is never seen apart from fat, and in milk the fat never apart from caseinogen. Caseinogen is not a chemic entity *sui generis*, but it and the fat together constitute a highly complex organic substance that might be called oleo-nucleo-proteid.

DISEASES OF WOMEN AND CHILDREN.

Pus in the Pelvis and the Vaginal Route.—Dr. J. T. Johnson, in the *American Journal of Obstetrics*, July, 1898, summarized the advantages of the vaginal route over the abdominal in operations as follows:

1. The vaginal section is very much more quickly done than the abdominal, and the convalescence is much shorter.

2. There is little or no shock.

3. The peritoneal cavity being seldom opened in these cases, except when hysterectomy is done at the same time, much less traumatism occurs to intestines, bladder, ureters, omentum, or abdominal wall.

4. Drainage being down-hill is not opposed by the laws of gravity, and is more natural, safe and copious.

5. There is no ugly scar to annoy the eye and develop a painful keloid or permit a ventral hernia.

6. The mortality of the vaginal operation for pus is vastly less than in that of enucleation of tubo-ovarian abscesses from above in the badly adherent and complicated cases.

7. Experience has abundantly proved in more than a sufficient number of cases that the renewal of the abscessed organs is not necessary to a symptomatic cure, and that a permanent and complete restoration to health is the rule, while a secondary operation later on is the exception.

8. Should a secondary operation from above become necessary, its performance would be much easier and safer, on account of the freedom from pus and the improved condition of the patient.

9. The perfection of the operation for draining double pus-tubes through the vagina has opened the way for many other beneficent operations from below, including anterior and posterior colpotomy, explorations, hysterectomy, etc.

10. Many patients who fear and will not consent to celiotomy with its possible accidents, including intestinal injuries, the post-operative sequela, and the scar, the stitches, the bandages, the troublesome supporter for six or eight months, and the possible hernia, will readily consent to vaginal incision and drainage, and vaginal hysterectomy when necessary.

11. Vaginal hysterectomy, with the ovaries left in situ, is

followed by much less nervous and physical disturbance than when the ovaries are removed and the uterus left, or than when they are all removed at the same time.

12. If any or all of these advantages are admitted in favor of the vaginal operation over the abdominal, then it must follow that it is our conscientious duty to operate by this route more frequently in the future than we have done in the past.

The Rash of Varicella.—Audeoud (*Arch de Méd. des Enfants*, September, 1898) says that a prompt or preliminary rash may be present in chicken-pox, which bears no relation to the essential vesicular eruption of the disease, and that over thirty cases have been reported. While this rash may occur under a variety of forms—scarlatinaform, morbilliform, purpuri or polymorphous—yet five-sixths of all cases have been examples of scarlatinaform erythema. Diagnosis is made by absence of severe general symptoms, rapid extension of a short-lived eruption, which does not desquamate, and the subsequent development or co-existence of the characteristic varicella vesicles. A marked but transitory rise of temperature may precede the rash. There is no prognostic value to the rash, except that the hemorrhagic form presages a bad state of the general economy; nor is there any therapeutic indication to be obtained from the rash, except that in the hemorrhagic form time and supporting measures must be employed.—*Med. Review of Reviews*.

Influence of Coitus with White Men in Inducing Sterility in Aboriginal Women.—Dr. Sarsfield Cassidy, of New South Wales (*Medical Council*), says that it is well known in that country and established beyond doubt that an aboriginal native woman of Australia will never bear children to an aboriginal man after she has once had offspring by a white man. It has been tried in vain to find an instance where the aboriginal woman, having returned to the black man's camp, though sound in mind and body and absolutely free from any disease whatever, and having lived there with black men whose power of reproduction was beyond dispute, did not, nevertheless, remain absolutely barren.

If, says Dr. Cassidy, the diseases of civilized life were communicated to the woman before her return to the gunyah of the black man, thereby placing her *hors de combat* in the work of

reproduction, the problem might be easily susceptible of solution; but it has been proved, he says, over and over again that the woman being absolutely sound and the man entirely able, no results follow their union even under the most favorable circumstances. Should she, however, return among white folks, she conceives with evident ease. The black man does not taboo her during her stay with him, but, on the contrary, on account of her mixing with the whites, he treats her with special friendship and ardent affection.

We may add that such is also the case on the west coast of Africa, where the black woman who has lived with a white man is especially favored by the native male.—*N. Y. Med. Jour.*

SURGERY.

Absorbable and Non-Absorbable Suture Material.—Dr. S. C. Gordon, in the *Journal of Medicine and Science*, July, 1898, summarizes an article on the above topic as follows:

1. All suture material unabsorbed must necessarily have more or less exudate about it.
2. Such exudate is of lower vitality than normal repair where tissues are just approximated and not strangulated.
3. A few days only are necessary to insure repair, if there be no infection, and therefore in cases where no great amount of strain exists absorbable sutures only are needed.
4. Where continued strain on the parts is inevitable, non-absorbable sutures should be used for at least two weeks; but should be so placed as to be removed.
5. For such sutures the silk-worm gut seems to be the best, as it can be made sterile and kept so.
6. For all other purposes catgut is sufficient.
7. Inflammation is always destructive to complete repair.
8. Inflammation is always due to infection.
9. Sterile catgut, or kangaroo-tendon, should, therefore, fulfil all indications for suture or ligature material, with exceptions named.

DERMATOLOGY AND SYPHILOLOGY.

Treatment of Xanthoma.—Dr. J. C. Maguire says that he has seen several cases of xanthoma treated by monochloracetic acid, with a result of the complete disappearance of the disease, the only thing noticeable being a slight lightening in color at the site of the lesions. The objection to excision is on account of the pain. In using monochloracetic acid there is no pain, and, if the eyes are properly shielded, no danger of injuring these organs. Considerable swelling of the surrounding tissue is sometimes observed, but this soon passes off. The acid should only be applied to a limited surface at a time, not larger than a split pea. When first applied the yellow lesions almost immediately turn white; in a short time a dark crust appears, which should be allowed to separate spontaneously.—*Jour. Cutan. and Genito-Urin. Dis.*

Tinea Versicolor.—Dr. Charles Warren Allen (*New York Medical Record*, Oct. 22nd, 1898) says that in forty-seven cases observed several points had impressed him. They are as follows:

1. That a large proportion of the subjects were young women, many of whom came from Austria, the proportion of Austrians to Poles treated at the institution being very small.
2. That many gave a history of recurrence after apparent cure.
3. That several had lesions extending upon the neck and even to the sides of the cheek over the lower jaw. One had a patch upon the brow.
4. The tincture of iodine or Lugol's solution brings out the fainter and at times almost imperceptible lesions by staining them a deep mahogany color, which contrasts markedly with the staining of the adjacent normal skin.
5. That in a certain rather large proportion of instances, especially in women, a patch hidden by the hairs of the pubic region escapes observation and treatment, and that recurrence is often due this fact.
6. That treatment must be persevered in after the surface appears free from lesions, because the origin of each separate round plaque is perifollicular and perhaps intrafollicular, and unless remedies are employed which penetrate, or are employed in such a way that they are made to enter the follicular open-

ings of the skin, new punctate lesions will be seen to arise about the follicular openings.

The Treatment of Ringworm.—Thomas recommends his modification of Sabourand's treatment for *tinea tonsurans*: (1) The whole scalp is painted with tincture of iodine, and then carefully dried. By this each diseased patch is stained a darker brown than the healthy skin, enabling one to attack places at once which would be otherwise invisible. A circle is drawn with a blue pencil around each ring, and the hair epilated for one centimeter outside of it, the rest of the hair being cut short. (2) The patches are painted every day with the iodine until a certain amount of irritation of the skin is set up. The treatment is then suspended until the skin has regained its natural appearance and the hair begins to grow again. (3) The patches are shaved, and daily painting is resumed, active treatment thus alternating with abstention, until microscopic examination shows the cure to be complete. The only difficulty about the course is to recognize the exact time for temporarily leaving off the painting, since if continued too long a pustule results and causes delay.

The above treatment is especially applicable to the more common variety of *tinea* caused by small spores.—*Brit. Med. Jour.*

Penis Syphilides.—In discussing this subject, Glautenay reported the following case at the recent meeting of the French Urological Association: The patient, a man thirty years of age, had had syphilis, which was treated only for fifteen days (*American Medico-Surgical Bulletin*). Four years after the appearance of the chancre an induration of the urethra developed. The diffuse syphiloma of the urethra transformed the canal into a hard tube from the preputial frenum to the perineum. There were some ulcerated tubercular syphilides upon the glans. There was frequent and painful micturition. Specific treatment rapidly caused almost complete cure. The functional difficulty ceased, and the induration disappeared, except a small nodule near the frenum. This lesion of the canal may be produced by two processes: syphilides may begin in the vicinity of the glans and progressively invade the canal, or may originate within the latter. The first variety is of comparatively trifling importance; the second (to which the case related by Glautenay belongs) is

rare. This case may contribute to explain the difficult subject of tertiary syphilitic structures. If the lesion in this case had been left to itself, softening of the gummatous tissue could upon cicatrizing have given rise to a deep structure of large size.

GENITO-URINARY DISEASES.

Pathological Changes in the Penis of Old Men.—N. Schurigin (*Wiener*) examined, microscopically, the penis in twenty-one old men, between the ages of fifty-five and eighty-eight, and in whom all diseases pertaining to that organ could be excluded. The subjects chosen were men suffering from short illnesses before death. The greatest change was found in the blood vessels. The arteries were sclerotic, the intima thickened and sometimes showed hyaline degeneration; the unstripped muscle fibers in the media were atrophied, with formation of connective tissue. The neurolemme of the nerves were thickened, and the nerve fibers decreased, the dorsal nerve being an exception, showing no change. The nerve ends and tactile corpuscles atrophy before the sixtieth year. The walls of the cavernous spaces are thin and contain little inserted muscular tissue and much connective tissue. In three cases fatty degeneration of muscular tissue was found.—*Ed.*

High Specific Gravity in the Urine.—Hoge, in the *Virginia Medical Semi-Weekly* (July 1895), describes the case of a woman 25 years of age who complained of bladder irritation and sea-sickness. The total quantity of the twenty-four hours was but 1.5 c.c. of a clear, brown, reaction acid, no albumen, no sugar, amount of urea, phosphates, sulphates, etc., normal. The specific gravity was too high to be measured, requiring dilution after adding an equal quantity of water and multiplying the result by two; the result was the astonishing one of 1.045. Chlorides were found to be nearly 4 per cent. by the method of Fehling.

The woman lived chiefly on salt pork, and great quantities of salt and frank princi-

ple were used. The patient was treated by Hydraulic Pressure for the rupture of the Bladder for Whatever Cause in Johns Hopkins Hospital *Bulletin* for dangerous and generally senseless pro-

cedure. The most frequent cause of contracture of the bladder is tuberculosis. The stretching of the muscular fibers of a recently tubercular bladder means always wretched suffering, and the stretching of an old infiltrated and contracted tubercular bladder has resulted in rupture and death. There are but two kind of cases to which this treatment is suited, and they are of rare occurrence. One is the contraction following extensive repair of vesico-vaginal fistula. The other is the mysterious but very pronounced atonic contraction of hysteria. Even these should not be treated by the uncontrolled pressure of a fountain syringe, but rather by the gradual pressure or an easily controlled hand syringe of the Janet or Colin patterns.—*E.*

DISEASES OF THE NOSE, THROAT AND EARS.

A Common Cause of Failure to Cure Suppurative Middle Ear Disease.—Randall (*Philadelphia Poly. Jour.*, Vol. 7, No. 42) recently called attention to two cases illustrating a not uncommon cause of failure to cure suppurative disease.

A small boy, with history of a rather acute inflammation of the right ear, with moderate purulent discharges, presented on the left cerumen-like flakes upon the canal walls, which left only slightly reddened surfaces on removal. On the right a similar flake was removed from the upper pole, uncovering a broad-based granulation mass above the short process of the malleus. The flaccid membrane seemed destroyed, and the Rivinian notch enlarged by caries of its margins (more than accorded with the acuteness claimed for the condition), while tense membrane below was intact and surprisingly normal for one bathed for weeks in pus. The extent of the attic involvement can only be determined after the complete destruction of the granulation growth; and while it may come to speedy and lasting cure, it is not unlikely that there is extensive necrosis, and radical operative intervention may be needful. In the absence of visible perforation in the tense membrane in this case, the shrapnell opening ought never to have escaped recognition; yet such is often overlooked, in fact.

In the second case there was suppuration defying treatment, and cleansing showed a pin-hole perforation down and forward as the apparent source of the pus. Closer study, however, showed that up and back there was undue overhanging of the posterior fold

rare. This case may contribute to explain the difficult subject of tertiary syphilitic strictures. If the lesion in this case had been left to itself, softening of the gummatous tissue could upon cicatrizing have given rise to a deep stricture of large size.

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High Specific Gravity of the Urine.—Hoge, in the *Virginia Medical Semi-Monthly*, of May, 1898, describes the case of a woman 21 years old who complained of bladder irritation and scalding urine. The total quantity of the twenty-four hours was but a half-pint. Color brown, reaction acid, no albumen, no sugar; amount of urea, phosphates, sulphates, etc., normal. The sp. gr. was too high to be measured, requiring dilution after reduction by adding an equal quantity of water and multiplying the resulting sp. gr. by two; the result was the astonishing one of 1.120. The chlorides were found to be nearly 4 per cent. by weight of the total urine. The woman lived chiefly on salt pork, ham and mackerel, ate great quantities of salt and drank principally tea and coffee.—*Ex.*

Stretching the Bladder by Hydraulic Pressure for the Treatment of Contracture of the Bladder for Whatever Cause.—H. H. Young, in *Johns Hopkins Hospital Bulletin* for May, 1898, revives this dangerous and generally senseless pro-

cedure. The most frequent cause of contracture of the bladder is tuberculosis. The stretching of the muscular fibers of a recently tubercular bladder means always wretched suffering, and the stretching of an old infiltrated and contracted tubercular bladder has resulted in rupture and death. There are but two kind of cases to which this treatment is suited, and they are of rare occurrence. One is the contraction following extensive repair of vesico-vaginal fistula. The other is the mysterious but very pronounced atonic contraction of hysteria. Even these should not be treated by the uncontrolled pressure of a fountain syringe, but rather by the gradual pressure or an easily controlled hand syringe of the Janet or Colin patterns.—*Ex.*

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and the bent probe could be carried up under this into theaditus, or even to the antrum, and brought thence some of the cheesy pus and cholesteatomatous flakes which were there maintaining the disease. The intratympanic syringing and probing may succeed in cleansing these cavities and securing a cure, but this case is more likely than the former to demand radical intervention, not only to relieve any ossicular caries (the incus is probably necrotic), but to open up the antrum to free access.—*So. Cal. Pract.*

Osteomata of the Frontal Sinuses.—Nine deaths followed surgical intervention in the twenty cases on record. A. S. Tauber describes another case, in which he removed three from a 32-year-old patient, which had developed subsequent to a traumatic injury above the left eye and caused pronounced ocular disturbances. He found several polypus growths in the mucosa with the osteomata, one still growing and two dead.—(*Cbl. f. Chir.*) *Jour. A. M. A.*

Deafness and Nasal Disease.—Catarrhal cases are very numerous in this country, and the larger per cent. of them go without treatment unless some threatening complication like approaching deafness arises.

Many children are compelled to reach their majority in a condition which unfits them for active business pursuits, because of a neglected nasal disease. The profession is not entirely to blame because the people will not appreciate the danger of neglect in such cases. It is to blame, in a great measure, for the impression which is so general that relief of nasal catarrh is a hopeless undertaking. Even where there is beginning deafness, a great deal of benefit can be given these patients. If hearing cannot be entirely restored, at least further injury may be prevented. If there be occlusion of one or both nostrils, obstruction should be removed. In deviations of the septum, if sufficient room cannot be secured by reducing or removing a turbinate, then the septum should be straightened. If the function be damaged by hypertrophic rhinitis, this condition should be systematically treated with confidence as to results. In atrophic rhinitis little hope of ultimate cure can stimulate us; but we can at least give the patient comfort by keeping the membranes well covered with some bland oil, which will prevent the accumu-

lation of crusts, and keep it in a pliable, comfortable condition, thus mitigating to some extent the effect upon the ear.—*Kansas Med. Jour.*

NEUROLOGY.

Lactophenin in Chorea Minor.—Use the following as sedative and antispasmodic for children of 5 to 10 years:

- R Lactophenin 2¼ grs.
 Quinine hydrobromide..... 2¼ grs.
 M. One such powder to be taken three times a day.

For children of 10 to 15 years use:

- R Lactophenin 12 grs.
 Quinine hydrobromide..... 12 grs.
 Cocoa butter..... 150 grs.
 M. Make a suppository and use at bed-time.

—*Pediatrics.*

The Action of Diphtheria Toxins on the Nervous System.—Drs. Luisada and Pacchioni, in the *Giornale della R. Accademia di Medicina di Torino*, Vol. 61, report the results of a number of experiments made upon dogs with the diphtheria toxin; these results are about as follows:

1. The diphtheria toxins applied directly to the nervous system provoke a profound lesion at the point of application, characterized by an inflammatory and degenerative action.
2. These lesions are propagated more or less extensively from the point of application.
3. In the non-immunized dogs, which have been injected by a dose sufficiently toxic, the phenomena of local reaction were noted.
4. In immunized dogs the toxins constantly produced alterations in the central nervous system, intense, localized, but of less extent than those produced in dogs non-immunized.
5. The toxins applied directly to the medulla are propagated rapidly in all directions, preferring the posterior columns, the gray matter, and the central canal as routes. In consequence of the bulbar invasion, death occurred in the animals more rapidly when the toxins were introduced into the medulla than when applied to any other portion of the cerebro-spinal axis. When the toxins were introduced into the cerebral cortex, char-

acteristic lesions of these regions were manifested. Death occurred later, through propagation of the poison to the medulla.

6. Toxins introduced into the sheath of the sciatic nerve provoked an inflammatory process more or less intense, but more circumscribed than in the central nervous system. From the nerves the poison ascended to the medulla, chiefly through the posterior columns, and thus provoked an ascending myelitis.

7. The lesions produced upon the neuroglia by the direct action of the toxins are similar to those reported by Vassale, Donagaglio, and others in the various intoxications and infective processes. In the oblongata the prevalent alterations are found in the crossed pyramidal tracts and posterior columns.

8. The alterations produced by the toxins affect the nerve fibres more than any other part of the nervous system. These lesions affect principally the myelin, and consist of a physical modification of it, whereby the connection between the various nerves is lost. There is partially a chemical modification of the myelin also present.

9. The action of the toxins has much importance in the genesis of various paralyses as seen in the human family, attacking first the sheaths of the nerves, then the nerves and then later the nerve-centers of the medulla.

Lactophenin in the Treatment of Insomnia of the Insane.—Christiani (*Rif. Med.*, June 16, 1898, from *Il Manicomio Moderno Giornale di Psichiatria*, XIV., 2) has given lactophenin for insomnia in over two hundred cases of insanity with very good results. The dose given varied from 1 to 3 grammes, the remedy being administered in some sweet emulsion. Sleep that had all the characteristics of a natural slumber followed in a very short time, lasted from four to nine hours, and was not succeeded by any bad effect—no stupor or morning headache and no digestive disturbances. Like most other hypnotics, it lost its effect after continued use, but after a short intermission could be used again with good results. The author used it in all kinds of mental cases, and in different physical conditions—for example, cardio-vascular, kidney and other diseases. He considers it quite safe and more generally useful, in insane subjects, than opium, trional or any other hypnotic. As it has no taste or smell, it is not difficult to administer.—*British Medical Journal*.

OPHTHALMOLOGY.

The Origin of Spectacles.—Dr. Edmond E. Blaauw of Buffalo writes: In your issue of September 8th you quote the *Southwestern Medical Record* for August, in which Dr. E. P. Daviss says that "it is to Charles II of England that the world owes the discovery of lenses as an aid to vision."

Allow me to refer to Dr. J. Stilling, *Grundzüge der Augenheilkunde* (Vienna and Leipsic, 1897, page 81), where we find the following sentences: "For the first time Konrad von Würzburg and Rogar Bacon (and previously the Papist Amiss) refer to the use of magnifying glasses for reading and writing. The invention proper of convex glasses happened in the beginning of the fourteenth century, and is ascribed to the Florentine Salvino d'Armati, as his well-conserved epitaph to-day shows. The invention was nothing else but two ordinary magnifying glasses connected with a joint and kept in the hand for reading, etc., and the concave glasses are first to be found in the middle of the sixteenth century.

According to this, it would seem that the use of a pair of glasses is at least a hundred years older than Dr. Daviss would have us believe.—*New York Med. Jour.*

And we are told by a Roman historian that Nero, being myopic, viewed the games of the circus through an emerald that was ground concave. Researches also show that Abraham used spectacles when choosing wives.

Optic Neuritis in Typhoid Fever.—Since accurate observation has shown that in nephritis the optic papillæ may assume a condition identical in appearance with that met with in meningitis and brain tumor, it is of interest to note that typhoid fever may also be the cause of such changes as we have hitherto believed gross changes in the brain alone. C. Braine Hartnell reports a case of typhoid in a lad of 11 years that pursued a fairly regular course for 16 days, when inequality of the pupils developed and the ophthalmoscope revealed a marked double optic neuritis. Because of little diarrhea, irregular temperature, absence of petechiæ, and presence of the optical symptoms, a diagnosis of meningitis was made.

A post mortem three days later disclosed typical inflammation of Peyer's patches and the solitary follicles, but absolutely

nothing in the brain to explain the optic neuritis.—*Brit. Med. Jour.*

Eye-Strain.—Cheney (*Boston Med. and Surg. Jour.*) discusses eye-strain as an important etiological factor in the various forms of functional headache, now so well recognized both by the medical profession and the laity, enumerating the varying peculiarities of such ocular headaches, and the many symptoms of eye-strain in general. He calls especial attention to two conditions, which are not sufficiently known, as being caused by eye-strain—vertigo and drowsiness.

He mentions the fact that vertigo is produced most frequently by some systemic disorder, but he recites examples in which this symptom depended upon eye-strain and disappeared after proper glasses had been prescribed. While he does not credit errors of refraction with being frequent causes of drowsiness, he mentions the fact that such a connection is not uncommon, and relates cases in which such drowsiness, especially upon application for near work, was removed by correcting lenses. Examples are also added showing that, in some cases at least, “that tired feeling” with which so many are afflicted is dependent upon eye-strain.—*Ex.*

TERATOLOGY.

Complete Congenital Separation of all the Bones of the Cranium.—Dr. B. Rosenberry writes to the *Journal of the American Medical Association* the following account: Recently I attended a lady in confinement, who gave birth to a female child at term—presenting such a remarkable and unusual anomaly of osseous development—that I herewith hand you the details, in brief, for publication. The fetus presented by the occiput and nothing unusual was observed till the head engaged in the vulvar outlet, when great mobility was apparent to the touch. After delivery, which was normal—assisted by traction with the hand only—all the cranial bones were found to be completely disunited at their sutural lines. *Not one* was united with its fellow, and in the case of the frontal bone, the two halves were ununited as in very early fetal life. No union anywhere had ever existed, although the individual bones were perfectly formed, and when held in proper position in the hands, made a cranium of normal shape and size. In fact, after delivery of the head

from the outlet, there was not much displacement with the head lying at rest, the bones seeming to be held in relatively proper position by the connective tissue underlying the scalp. The scalp itself was normal, not perforated or broken at any point, and manipulation of it gave the impression of a bag or sack containing separate bones loosely attached to its inner surface, which was in fact the case. The fetus was dead, and from appearances had been so for several days. The mother felt "motion" last about three days previous to the onset of labor, which was slow and prolonged by reason of the conditions set forth.

There was nothing remarkable about any other portion of the osseous system; the child was well developed, and would, perhaps, have weighed eight or nine pounds. The parents are healthy, and there is no history of any constitutional taint or dyscrasia on either side. The mother has aborted twice—once at four and a half months, once at seven and a half—the only times, save this last, of pregnancy.

An interesting circumstance connected with the case is the fact that *each parent was a seven months' child*. What rôle, if any, this circumstance may have played in the case, I will not attempt to say. I was unable to procure the infant for dissection and preservation of specimen, much to my regret. In a careful search of all the literature at my disposal bearing upon anomalies and monstrosities, I have been unable to find a similar case, and in an experience of a quarter of a century I have not before seen anything approaching it. The condition was not due to hydrocephalus.

MEDICO-LEGAL.

Mental Capacity in Will Making.—Johnson (*Canadian Journal of Medicine and Surgery, Montreal Medical Journal*) says that a medical man should never consent to make a will for a patient, and he should remember that if he signs his name as a witness, he not merely acknowledges that the testator did sign the will, but that he was in a fit and proper condition to do so. If a medical man is asked to decide whether a dying person is or is not in a fit state of mind to make a will, it is as a rule only necessary to ascertain whether the sick person can clearly and rationally answer a few questions put to him, or can repeat unaided the provisions of the will he wishes to make. In the case

of feeble-minded persons a private interview should be insisted on, when the patient may disclose the existence of any undue influence. He discusses the wills of insane persons as well as wills of persons incapacitated by drunkenness, delirium, the stupor induced by narcotics and similar conditions.—*Ex.*

Exhibition of Rupture to Jury.—In the personal injury case of the C. & A. R. R. Co. vs. Clausen, in which the supreme court of Illinois affirmed a judgment against the company and denied a rehearing, June 10, 1898, it was complained that the trial court had improperly permitted the plaintiff below to exhibit to the jury a rupture, alleged to have been caused by the accident set forth in the case. This leads the supreme court to say that it is primarily within the discretion of the trial court to permit an injury to be shown to the jury for any legitimate and proper purpose that will aid in the determination of the issue, and that while it is questionable whether the exhibition referred to was proper, inasmuch as the existence of the rupture and the nature and extent of it were not controverted by the defendant, and it is questionable whether its only effect would not be to excite feeling, rather than to aid in settling any disputed question, the court does not feel prepared to say that such was the case or that there was a clear abuse of the discretion confided to the trial court.—*Journal American Medical Association.*

Snowslide an Inevitable Catastrophe.—A decision of interest to railroads has been rendered by the court of appeals of Colorado. A train running in a severe snow storm was struck and derailed by a snowslide in the mountains at a point where a slide had never been known to occur before. The train had been managed in all respects as was usual in case of storms. It was equipped with an ordinary push snow plow, which had usually been sufficient to keep the track clear, and on this occasion had kept it so clear that the train was nearly on time at the place of the accident. In this state of facts it is held that the snowslide was an inevitable catastrophe which the railroad company was not bound to anticipate. Accordingly, a verdict in favor of a passenger for injury received thereby was set aside. The fact that a rotary plow, sent ahead of the train, might have prevented the accident, is held not to affect the question of liability, as the company was under no duty to take such a precaution under the circumstances.—*Railway Age.*

BOOK REVIEWS.

Histology: Normal and Morbid. By EDWARD K. DUNHAM, Ph.B., M.D. 8vo., pp. 448. Illustrated with 363 Engravings. [New York and Philadelphia: Lea Brothers & Co. 1898. Price, \$3.25 net.

A book which acquaints us with improved and advanced methods of dealing with a subject is certainly deserving, not of commendation alone but of imitation, that sincerest form of flattery. It is for this reason that we expect to find others who will follow the lines which have been laid down in the most excellent manual before us. No attempt has been made to write an elaborate or comprehensive treatise, but rather a work pointing in a clear and easily understood manner the essential principles of normal histology, and a good account of morbid histology whose mutual and close relations will become evident to the reader and student as he familiarizes himself with the text so interestingly set forth. The author has established new lines, which he has followed and, to our mind, in a very successful manner.

The author takes up a consideration of the cell, and in this he makes his subject clear and interesting in such a manner that its true value in the organism can be fully appreciated, not only from a morphological point of view but biologically as well. Cell division or karyokinesis is very plainly set forth, amitosis being also demonstrated. The subjects of the following chapters embrace the Elementary Tissues, the Epithelial Tissues, the Connective Tissues, Tissues of Special Function, and the Organs taken up *seriatim* in different chapters. In each one we find a mass of useful information which is thoroughly modern and in line with the latest advances. Thus, in the chapter devoted to the reproductive organs, ovulation is well described as also spermatogenesis. This is certainly a most valuable addition to a mere formal description of the structure of those organs. The student will find such information of the greatest value in his studies of physiology. Late and approved nomenclature is also employed by the author, as, for instance, in the consideration of the histology of the nervous system. Here he speaks of *dendrites*, *teledendrites*, the *neurite*, *teleneurites*, and the *neuron*. The part devoted to normal histology occupies 265 pages.

Part II., in which the histology of morbid processes is taken up, is rather short, comprising some 130 pages. In this are given general considerations on Degenerations and Infiltrations, Atro-

phy, Hypertrophy and Hyperplasia, Metaplasia, Structural Changes Due to and Following Damage, and Tumors. This is quite a large range of subjects, and yet he who has followed his directions, as given in normal histology, regarding the proper examination of cells and cell structures, will find that morbid histology will be comparatively simple and the nature of morbid changes really an easy matter. The author restricts the term tumor "to abnormal masses of tissue produced without obvious reason and performing no function of use to the organism." Whilst it may not be the great desideratum, from a strictly pathological sense, it is from a histological point of view one which tends to promote clearness of conception. In the concluding chapter histological technique is discussed, although but little space is accorded to this very comprehensive subject. Section cutting, staining and counter-staining are considered from a view explanatory of the principles which should always be remembered.

On the whole this is a work which recommends itself to those who have acquired a certain knowledge of histology both normal and morbid; and to those who desire to acquire a thorough knowledge of the principles of this fascinating study we would say, possess yourself of a copy of this work. We are almost certain that teachers of histology will not hesitate a moment before recommending this manual to their pupils. It is the more useful by reason of the large number of well executed engravings which have evidently been selected with the greatest care.

The publishers have certainly made a most handsome volume of this work.

Affections Chirurgicales du Tronc. Statistique et Observations. Par le DR. POLAILLON. 8vo., pp. 843. [Paris: Octave Doin, 8 Place de l'Odéon. 1898. Prix, 12 francs.

Surgical Affections of the Trunk. Statistics and Cases. By Dr. Polaillon. 8vo., pp. 843. [Paris: Octave Doin, 8 Place de l'Odéon. 1898. Price, 12 francs.

The author of this work has done a real service to surgery in publishing his surgical work during the past nineteen years in hospital practice. Our readers may remember that three years ago we had occasion to review the first volume of this series on the Surgical Affections of the Limbs. In the one before us he takes up these affections as they occur on the trunk, including the spine, the abdomen and pelvis, as well as the ano-rectal region and the genito-urinary organs. The talented surgeon of l'Hôtel-Dieu has gathered a vast amount of statistical and clinical experience in his work and we may anticipate much of equal value in the volumes which are to follow. He has been enabled to

systematize the records of his work, from the fact that he has had the efficient assistance of competent internes and externes, and in this manner has been placed in a position to make his work valuable to others.

The statistics of this volume include 711 traumatic and organic lesions of the trunk, 156 of the spine, 403 of the thorax, 691 of the abdomen, 97 of the pelvis, and 1,124 of the male genito-urinary organs, or a total of 3,082 cases. The affections of the female genito-urinary organs are to appear in a succeeding volume. Out of the total some 340 of the more interesting cases are described in detail and illustrated with 50 engravings. In all the statistical information we are told all the details regarding sex, as to whether operations were performed, and the final results following such operations, all of which are very valuable points to those contemplating similar work. Taken as a whole it must be regarded as an honest record of the hospital work of a most eminent surgeon.

We regret exceedingly that similar published records of the work done by our surgeons do not exist. Their failures as well as successes could not but act as a stimulus to those who, whilst being capable, unfortunately labor under the delusion that surgeons rarely fail because they do not publish their unsuccessful cases. We are yet hoping that such books as the one before us will be taken as models and followed in this country so far as the records of public hospitals are concerned. In the meantime, those so unfortunate as not to understand French are losing a treat in not reading Polaillon's reports.

Text-Book of Medical and Pharmaceutical Chemistry.

By ELIAS H. BARTLEY, B.S., M.D., Ph.G. 8vo., pp. 738. Fifth Edition. Revised and Enlarged. With 96 Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1898. Price, \$3.00.]

We have observed that of late years chemistry has been more thoroughly taught in medical colleges, and has not consisted merely of a few lectures on inorganic chemistry supplemented by still fewer experiments of more or less doubtful value as was the practice in former times. To-day laboratory work is exacted and organic chemistry is made a necessary part of the curriculum. It is considered a necessary part of a medical education, and very justly so, as there can be no doubt whatever that it conduces to aid in making therapeutics more rational. In the present book it has been the author's aim to write a work on chemistry more particularly adapted to the wants of medical students and practitioners of medicine. In this he has admirably succeeded. He has brought the matter up to date and given us a modernized version which will be eagerly taken up. Of this there can be hardly any doubt when we consider that it is now in its fifth edition.

Among the improvements to be noted are a change to the new spelling of chemical terms, and the rules for this new spelling are given in an appendix. What we cannot understand is the recommendation (page 682) to use *chlorid* for *chlorid*. Certain portions have been entirely rewritten, such as the chapters on Nutrition, the Clinical Examination of Milk, Gastric Contents, Vomit, and Feces. Part V, devoted to physiological and clinical chemistry, is a most valuable portion of this text-book and is apt to prove of the greatest value to physicians, more especially in respect to ferments, nutrition, foods and diet, and digestion. There is also a most valuable portion devoted to the abnormal constituents of urine and urinary deposits or sediments.

On the whole, this book is a most valuable addition to the literature of medical chemistry and, in its present revised form, it will no doubt retain the high position it has gained, for years to come. The publishers have gotten it up in most approved style and it will make a handsome addition to any library.

A Manual of Venereal Diseases. By JAMES R. HAYDEN, M.D. Second Edition. Revised and Enlarged. 12mo., pp. 304. With 54 Illustrations. [New York and Philadelphia: Lea Brothers and Co. 1898. Price, \$1.50 net.

This is certainly a good improvement on the first edition, which was an excellent manual. In the revision the author has made some important additions, notably the chapter on the proper care of urethral instruments. In addition to this the methods of treatment have been revised and are thoroughly modern. Moot points have been carefully avoided and only those methods of approved worth have been mentioned. So far as Fort's linear electrolysis in the treatment of stricture is concerned he is rather backward in fully recommending it, as there has not sufficient time elapsed to determine its full value.

In describing the varieties of chancre but a small number is given. The herpetiform chancre is not alluded to, and yet it is of much more frequent occurrence than is usually supposed. It is by no means as rare as the diphtheritic chancre. More attention also should be given to the seat of the chancre and more especially to digital chancres, which are so often mistaken for paronychia or some similar non-specific lesion. Altogether the portion devoted to syphilis seems to us to have been rather summarily disposed of, especially in view of the fact that so much space is devoted to gonorrhea, which does not present as many phases as the constitutional infection.

As a reliable handbook for students this manual is certainly of superior merit. It has been adopted by many teachers of venereology, and will continue to retain its well-earned popularity with students in medicine. It is a good little work that should awaken an interest in the subject with which it deals and

encourage as well as stimulate to further and more extended study of the interesting conditions which it merely outlines.

Diet and Food. Considered in Relation to Strength and Power of Endurance, Training and Athletics. By ALEXANDER HAIG, M.A. and M.D., Oxon.; F.R.C.P. 12mo., pp. 86. With Five Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1898. London: J. & A. Churchill. Price, \$1.00.

This is a well-written as well as scientifically considered special plea in favor of vegetarianism by a man who is eminently qualified to speak on the subject, both from a scientific and a practical point of view. His purpose is to demonstrate that milk, breadstuffs, cheese, fruits, nuts and vegetables produce all the albumen necessary to carry on the vital processes of life without the large excretions or insoluble urea and urates which meat-eating produces. He also proves that such a diet produces greater powers of endurance and makes better athletes. Stimulants of all sorts are decidedly frowned down upon, even tea. This little book is certainly deserving of a careful reading.

The Principles and Practice of Medicine. Designed for the Use of Practitioners and Students of Medicine. By WILLIAM OSLER, M.D. Third Edition, entirely Revised and Enlarged. Royal 8vo., pp. 1181. [New York: D. Appleton & Co. 1898.

In the present edition of the thorough work of the well-known professor of Johns Hopkins University it is easily seen that the author has thoroughly revised his masterly work, and the fact that the present volume contains thirty-eight more pages than the preceding edition shows that it has been materially enlarged. The advances made in the principles and practice of medicine during the last few years would alone have justified the author in revising his work, but a demand for a new edition made itself felt on account of the great popularity and corresponding sales which it has enjoyed. It has always been a favorite text book with students and a reliable guide to practitioners. The vast experience and erudition of Doctor Osler is appreciated on both sides of the Atlantic, and his work is as popular in England as it is in this country. This is certainly most flattering to him and reflects both credit and honor on this country.

Not only have a number of articles been entirely rewritten, but a number of new ones have been added, whilst in a number of others some new matter has been incorporated. The section devoted to diseases of the nervous system has been entirely rearranged, and a classification adopted more in accordance with the present conditions of the anatomy and functions of its different parts. In the consideration of typhoid fever he refers to Vidal's test, and whilst giving no pronounced view in regard to it, he mentions the fact, which has been observed by others, that

it sometimes fails in marked and typical cases. We have noted this tendency on the part of the author to prefer presenting the different views held by authority on the same subject in a correct and fair manner, and not insist upon his reader being influenced or biased by his own personal preferences. This is certainly a moderate course to pursue, and perhaps the better one in a work which is in nowise dogmatic.

Hydrophobia is distinguished from lyssophobia or pseudo-hydrophobia, despite the claims which have been made by some individuals that the former, as a distinct affection, does not exist. The author seems to think that there may be something in the injection of Pasteur's *virus fixe*, as the statistics of the Pasteur Institute of Paris would seem to show a great and marked diminution in the rate of mortality after the employment of the method. So far as tetanus and its treatment by means of an antitoxine are concerned, he very justly states that, up to the present, the method is still in an experimental stage. However, in speaking of the different makes of antitoxine for this purpose, he makes the statement that the Tizzoni product has been the most successful.

We cannot review this work in detail, as lack of space will not permit us to do so. Suffice it to say, that the work is not only well considered, excellently written, and in the highest degree valuable, but it is most interesting to read as well. The publishers have fully met the requirements this book deserves by issuing it in handsome form.

A Text Book of Pathology. By ALFRED STENGEL, M.D. 8vo., pp. 848. With Three Hundred and Seventy-two Illustrations. [Philadelphia: W. B. Saunders. 1898. St. Louis; Lewis S. Matthews & Co., 714 Pine St. Price, cloth, \$4.00 net; half morocco, \$5.00 net.

Pathology is one of the departments of medical study which is certainly making rapid and certain advances. Every day seems to be adding its contributions, many of which remain in the form of permanent additions to our already large mass of acquired knowledge. The work before us is a good exemplar of one which reviews in clear fashion the latest advances made up to the time of its publication. In but very few instances has the author discussed any questions, adopting those views which seem to have the greatest weight of authority in their favor. In those instances in which nothing of a positive nature has been determined, as in *molluscum contagiosum*, the author so states, and very wisely leaves the question an open one. In other instances, as in syphilis, whilst mentioning the claims made, he does not support any, although calling attention to the probability that the theory advanced is well taken.

The plan of the work has been to lay it upon lines of clinical

pathology, which method not only renders it more interesting but more practical as well. It is this very feature which will make this text book popular with students, as they will be enabled to perceive the goal of their work, and with teachers because they will be enabled to point out more clearly by its aid the interdependence of clinical and pathological facts considered purely as such. We have been very favorably impressed by the book, and we have enjoyed consulting its pages, in which the hitherto *terra incognita* of many members of the medical profession is exhibited in the light of a well-explored and delightful country replete with interest of the highest worth.

The book is divided into two parts, dealing, each one, with General Pathology and with Special Pathology. In the former are considered such general questions as the etiology of diseases, disorders of nutrition and metabolism, retrogressive processes, inflammation and regeneration, bacteria and diseases due to bacteria, animal parasites and diseases caused by them. We would have liked to see protozoa treated at some greater length, for there is no doubt that they are destined to play quite an important part in the pathology of the future.

In the second part, devoted to special pathology, the diseases of the various tissues and organs are taken up and the pathology of each one discussed. It is in this part that we note the author touching upon antenatal pathology when he speaks of congenital abnormalities. In our opinion he would add much of value were he to treat at greater length of the antenatal diseases or processes which lead to pathological conditions after birth. The subject is certainly one of the highest importance and, until made a special and separate study, it is certainly deserving of all the care and attention which pathologists can consistently devote to it.

The text book before us is most excellently written, and well presented by the publishers, to whom the profession is again under thanks for issuing such a valuable work at such a reasonable price. We can safely predict a marked success for this valuable addition to the literature of pathology.

The Care of the Baby. A Manual for Mothers and Nurses, containing Practical Directions for the Management of Infancy and Childhood in Health and Disease. By J. P. CROZER GRIFFITH, M.D. 12mo., pp. 404. Second Edition, Revised. With Sixty-seven Figures and Four Plates. [Philadelphia: W. B. Saunders. 1898. St. Louis: Lewis S. Matthews & Co., 714 Pine street. Price, \$1.50.]

We can heartily congratulate the author upon the success which the first edition of the present book achieved, and the demand which still exists for it. In the volume before us the reading matter has not only undergone a thorough revision, but

much that is new has been added. The chapter on "The Sick Baby" has been much improved, but the author has kept in mind his original design of only furnishing such information as may be of value in the period elapsing before the services of a physician can be secured. He very properly frowns down any attempt upon the part of mothers or nurses to treat children, and very justly considers their proper province to be encompassed by an adequate knowledge of how to nurse them. In this portion of the book he is most excellent, and the book can be recommended not only as a most excellent guide for mothers and nurses, but almost equally valuable to physicians.

Essentials of Materia Medica, Therapeutics, and Prescription Writing. Arranged in the Form of Questions and Answers. Prepared especially for Students in Medicine. By HENRY MORRIS, M.D. Fifth Edition, Revised and Enlarged. 12mo., pp. 288. [Philadelphia: W. B. Saunders. 1898. St. Louis: Lewis S. Matthews & Co., 714 Pine St. Price, \$1.00.

The measure of the success of a book is generally the demand which has been and is still being made for it. If this standard be adopted then the one before us, No. 7 of Saunders' Question-Compends, is not only a great success but one of which its author may well be proud. In the present enlarged edition there has been a thorough revision and the weights have been given both in the apothecaries' and metric systems. The latter will be found a most useful addition, not only because the latter has been adopted in the army, but also on account of the greater dissemination of Continental medical literature, in which it is exclusively used. The classification, to which the author adheres, is also excellent and much superior to an alphabetic system. We commend this little compend to those in need of such a book.

The American Pocket Medical Dictionary. Edited by W. A. NEWMAN DORLAND, A.M., M.D. 32mo., pp. 517. [Philadelphia: W. B. Saunders. St. Louis: Lewis S. Matthews & Co., 714 Pine St. Price, \$1.25 net.

Bound in flexible morocco covers, gilt on edge, and printed in plain type upon silk paper, makes this a luxurious little dictionary which can be easily carried in the pocket. There are contained in it the pronunciation of over 26,000 medical terms and over 60 extensive tables. The terms which are given are all modern, such as are archaic or obsolete having been eliminated as more properly appertaining to the larger and more pretentious works of this character. We note that the more modern orthography has been adopted, and we are pleased to see this, as it will no doubt exert a great influence in making medical

writers more progressive. This dictionary is, beyond all doubt, the best one, among pocket dictionaries, which has appeared in a long time.

Cleft Palate; Treatment of Simple Fractures by Operation; Diseases of Joints; Antrectomy; Hernia, Etc., Etc. By W. ARBUTHNOT LANE, M.S. 12mo., pp. 278. Illustrated. [London: The Medical Publishing Co., Limited, 22½ Bartholomew Close, E. C. Price, 5/.

To those who have enjoyed reading Mr. Lane's lectures in the *Clinical Journal* and his papers in various British medical publications this reproduction of eleven lectures will be matter of more than ordinary pleasure. They are so written that a second reading is attended with more interest and productive of still more valuable thought to the surgeon. The author is not only thorough, but he very happily combines the rare faculty of adding interest and pleasure to what many others would make very dry reading. One lecture which stands prominently among the others is that on Treatment of Simple Fractures by Operation, and he has not only illustrated it with diagrams but has had recourse to skiagraphs. In doing this he shows us the facility of making error by the ordinary methods of diagnosis and examination, and has thus contributed a valuable chapter to the subject of surgery. We would recommend our American confrères to procure a copy of this little book and read it with care.

A Manual of the Practice of Medicine. By FREDERICK TAYLOR, M.D., F.R.C.P. Fifth Edition. Small 8vo., pp. 1002. [Philadelphia: P. Blakiston's Son & Co. 1898. London: J. & A. Churchill. Price, \$4.00.

The first edition of this manual appeared a little more than eight years ago, and now we have the pleasure of examining the fifth edition. This, however, is no more than was to be expected of the excellent work of the distinguished physician to, and lecturer on medicine at, Guy's Hospital. The thorough revision of the book has made it a very complete manual, and the author has been very painstaking in his work, as is evidenced on every page. He devotes quite a deal of attention to nervous diseases and has a very good section on diseases of the skin, especially such as may fall under the observation of the general practitioner. He has not only dealt with the diseases ordinarily considered in manuals, but he has also devoted a certain amount of space to a number of troubles but recently recognized, or omitted in former editions. Among these are to be mentioned glandular fever, divers' paralysis, erythromelalgia, angeioneurotic edema, hypertrophic pulmonary osteo-arthritis, and tubercle of the skin.

We are much pleased to see the author devote some amount of attention to a subject which seems to be overlooked to a greater

degree than it should, at least by the majority of authors. It is one of the obscure chapters on medicine and deserving of greater study. We allude to mediastinal diseases, both chronic and acute, including tumors. The author has very correctly devoted a separate section to their description. This is a plan which we would certainly recommend to our own authors to follow, as the subject seems to be one avoided by students and not very eagerly sought by practitioners.

Whilst the author has endeavored to follow and maintain a classification in the treatment of his subject, he has found it impossible to observe it rigidly when it involves a division between constitutional and local diseases. For this reason he has grouped the different affections in that manner which suggested itself as being the best, and he has succeeded in giving us a most rational subdivision of the subject. Thus, among infectious diseases, he includes hydrophobia, diphtheria, dysentery, *böri beri*, foot-and-mouth disease, and a number of others formerly included in other classes. He handles his subject in such a manner that he insensibly leads one to view the matter in the same manner that he does.

We can heartily commend the book, and would advise Americans to read it, as it will bring them into closer touch with the exponents of the British school.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology, and Dermatology, and Specially Prepared Articles on Treatment and Drugs. By Professors and Lecturers in the Leading Medical Colleges of the United States, Germany, Austria, France, Great Britain and Canada. Edited by JUDSON DALAND, M.D. (Univ. of Penna.), Philadelphia; J. MITCHELL BRUCE, M.D., F.R.C.P., London, England; and DAVID W. FINLAY, M.D., F.R.C.P., Aberdeen, Scotland. Vol. III., Eighth Series. 1898. 8vo., pp. 355. [Philadelphia: J. B. Lippincott Co. 1898.]

In this volume of the International Clinics is given quite a marked number of lectures by distinguished Europeans, not to mention those contributed by well-known American teachers of medicine and surgery. The high standard which has been adopted for this publication is still maintained and the lectures are thoroughly up to date. The special articles on therapeutic methods are to be specially commended. They are not only finished essays, but are replete with most valuable information. Thus, Prof. J. Grancher, in his lecture on the treatment of tuberculosis, insists upon the necessity of properly feeding patients and making medicines subservient to food. This leads him to the consideration of dyspepsia.

An excellent paper is that on the Treatment of Bronchitis, by Dr. John A. Robison. Some Forms of Abdominal Pain, by G. Lauder Brunton, is replete with good points and practical advice. Graham Steele, of Manchester, is represented by a most excellent lecture on mitral stenosis, illustrated with a number of sphygmographic tracings. Whilst but a few lectures are to be found under the caption "Neurology," they are of a very high order of merit. Francis Warner, of London, explains the Physical Signs in Examination of Brain Cases, and Dr. Harold N. Moyer, of Chicago, gives a most excellent lecture on Bulbar Paralysis, and one which can be easily understood and will be highly appreciated by those who have had occasion to see cases of the sort.

The Comparative Results of the Four New Operations for Hypertrophy of the Prostate Gland are well set forth by Dr. Edmund Andrews. The author does not seem to be particularly impressed with the operation of double castration, and from the fact that he has only performed it three times it is to be inferred that he is not much in favor of it. Dr. Thomas H. Manley gives an excellent lecture on Secondary Hemorrhage, which is quite instructive. Lectures on subjects connected with gynecology and obstetrics, ophthalmology, laryngology and rhinology, and dermatology also appear in this volume. From the brief mention of the few lectures we have picked here and there the thoroughness of the volume, so far as its contents are concerned, may be judged.

One feature which we desire to commend more particularly is the preponderance of therapeutic and medical articles and lectures over those which are purely surgical. This should certainly commend the Clinics to the general practitioners. That the publication is appreciated is evidenced by the fact of its large sales in this country and in England and its ever increasing popularity in those countries.

A Pocket Medical Dictionary. Giving the Pronunciation and Definition of the Principal Words Used in Medicine and the Collateral Sciences. By GEORGE M. GOULD, A.M., M.D. A New Edition, entirely Rewritten and Enlarged, including over 21,000 Words. 32mo., pp. 537. [Philadelphia: P. Blakiston's Son & Co. 1898. Price, \$1.00.]

This is a very handsome edition of this pocket medical dictionary, bound in flexible morocco, gilt-edge, and printed on extra thin paper. This is one of the Gould medical dictionaries which has enjoyed the greatest popularity, and the demand for the different ones may be surmised when it is remembered that 80,000 have been sold. In the issue before us the author, who is a well-known champion of advanced orthography in medicine, has brought this feature up to date, and his definitions are to be

recommended as clear and perspicuous. This edition is certain to enjoy the same popularity which it so justly gained in the past on its merits.

Manual of Diseases of the Skin. With an Analysis of Twenty Thousand Consecutive Cases and a Formulary. By L. DUNCAN BULKLEY, A.M., M.D. Fourth Edition, Revised and Enlarged. 12mo., pp. 262. [New York and London: G. P. Putnam's Sons. 1898. Price, \$1.25.

We are more than pleased to see a new edition of this meritorious manual. The author has been a most prolific writer on the subject of cutaneous medicine, and none of his contributions has ever failed to make an impress or add to our knowledge of the subject on which he wrote. The present manual has been materially enlarged and much new matter introduced, so that its value as an introductory to a more serious and complete study of skin diseases cannot be overestimated. A feature which we desire to commend more particularly is the addition of a "diagnostic index." By its means ready reference may be had to the various diseases resembling any one, and in that manner greater facility afforded in an endeavor to make a differential diagnosis. We can heartily recommend the manual to students and general practitioners.

O-D.

LITERARY NOTES.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL:

Histology: Normal and Morbid. By Edward K. Dunham, Ph.B., M.D. 8vo., pp. 448. Illustrated with 363 Engravings. [New York and Philadelphia: Lea Brothers & Co. 1898. Price, \$3.25 net.

Affections Chirurgicales du Tronc, Statistique et Observations. Par le Dr. Polaillon. 8vo., pp. 843. [Paris: Octave Doin, 8 Place de l'Odéon. 1898. Prix, 12 francs.

Text-Book of Medical and Pharmaceutical Chemistry. By Elias H. Bartley, B.S., M.D., Ph.G. 8vo., pp. 738. Fifth Edition. Revised and Enlarged. With 96 Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1898. Price, \$3.00.

A Manual of Venereal Diseases. By James R. Hayden, M.D. Second Edition, Revised and Enlarged. 12mo., pp. 304. With 54 Illustrations. [New York and Philadelphia: Lea Brothers & Co. 1898. Price, \$1.50 net.

Diet and Food; Considered in Relation to Strength and Power of Endurance, Training and Athletics. By Alexander Haig, M.A. and M.D. Oxon., F.R.C.P. 12mo., pp. 86. With five Illustrations. [Philadelphia: P. Blakiston's Son & Co. London: J. & A. Churchill. 1898. Price, \$1.00.

The Principles and Practice of Medicine; Designed for the Use of Practitioners and Students of Medicine. By William Osler, M.D. Third Edition, entirely Revised and Enlarged. Royal 8vo., pp. 1,181. [New York: D. Appleton & Co. 1898.

A Text-Book of Pathology. By Alfred Stengel, M.D. 8vo., pp. 848. With 372 Illustrations. [Philadelphia: W. B. Saunders. 1898. St. Louis: Lewis S. Matthews & Co., 714 Pine St. Price, cloth, \$4.00 net; half-morocco, \$5.00 net.

The Care of the Baby; A Manual for Mothers and Nurses, containing Practical Directions for the Management of Infancy and Childhood in Health and in Disease. By J. P. Crozer Griffith, M.D. 12mo., pp. 404. Second Edition, Revised. With 67 Figures and 4 Plates. [Philadelphia: W. B. Saunders. 1898. St. Louis: Lewis S. Matthews & Co., 714 Pine St. Price, \$1.50.

Essentials of Materia Medica, Therapeutics, and Prescription Writing; Arranged in the Form of Questions and Answers; Prepared especially for Students in Medicine. By Henry Morris, M.D. Fifth Edition, Revised and Enlarged. 12mo., pp. 288. [Philadelphia: W. B. Saunders. 1898. St. Louis: Lewis S. Matthews & Co., 714 Pine St. Price, \$1.00.

American Pocket Medical Dictionary. Edited by W. A. Newman Dorland, A.M., M.D. 32mo., pp. 517. [Philadelphia: W. B. Saunders. 1898. St. Louis: Lewis S. Matthews & Co., 714 Pine St. Price, \$1.25 net.

Cleft Palate; Treatment of Simple Fractures by Operation; Diseases of the Joints; Antrectomy; Hernia, etc., etc. By W. Arbuthnot Lane, M.S. 12mo., pp. 278. Illustrated. [London: The Medical Publishing Co., Limited, 22½ Bartholomew Close, E. C. Price, 5/.

A Manual of the Practice of Medicine. By Frederick Taylor, M.D., F.R.C.P. Fifth Edition. Small 8vo., pp. 1,002. [Philadelphia: P. Blakiston's Son & Co. 1898. London: J. & A. Churchill. Price, \$4.00.

A Pocket Medical Dictionary; Giving the Pronunciation and Definition of the Principal Words used in Medicine and the Collateral Sciences. By George M. Gould, A.M., M.D. A New Edition, entirely Rewritten and Enlarged, including over 21,000 Words. 32mo., pp. 537. [Philadelphia: P. Blakiston's Son & Co. 1898. Price, \$1.00.

Manual of Diseases of the Skin, With an Analysis of Twenty Thousand Consecutive Cases and a Formulary. By L. Duncan Bulkley, A.M., M.D. Fourth Edition, Revised and Enlarged. 12mo., pp. 362. [New York and London: G. P. Putnam's Sons. 1898. Price, \$1.25.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology, and Dermatology, and Specially Prepared Articles on Treatment and Drugs. By Professors and Lecturers in the Leading Medical Colleges of the United States, Germany, Austria, France, Great Britain, and Canada. Edited by Judson Daland, M.D. (University of Penn.), Philadelphia; J. Mitchell Bruce, M.D., F.R.C.P., London, England; and David W. Finlay, M.D., F.R.C.P., Aberdeen, Scotland. Vol. III., Eighth Series. 1898. 8vo., pp. 355. [Philadelphia: J. B. Lippincott Co. 1898.

Surgery of the Lung is the title of the masterly oration in Surgery which Dr. J. B. Murphy of Chicago delivered, at the last annual meeting of the American Medical Association at its meeting in Denver, Col., June 7 to 10, 1898. It is a most excellently well written monograph of 141 pages, illustrated in a judicious manner and embellished with magnificent skiagrams. The author has made a profound study of his subject, and introduces a description of his method of introducing nitrogen in the lung in the treatment of tuberculosis. We are certain that this new contribution to surgery will add fresh laurels to the brow of the distinguished inventor of the button for intestinal anastomosis which has rendered his name famous.

Guaiacuin is the title of a booklet issued by Messrs. McKesson & Robbins of New York, in which clinical notes on the action, as well as a good description of guaiacuin, are given. Guaiacuin is a "guaiacolized" quinine or, chemically, guaiacol bisulphonate of quinine employed in the treatment of anemia, cachexiæ, malaria, and diseases characterized by septic infection or bacterial fermentative disturbances of the gastro-intestinal tract. This booklet is well illustrated, and those of our readers not already possessing it should write to the firm issuing it and read it, as it contains much information of value.

Diet for the Sick, by Miss E. Hibbard and Mrs. Emma Drant, matrons at two large hospitals in Detroit, 103 pages—board sides, postpaid, 25 cents—The Illustrated Medical Journal Co., Detroit, Mich., publishers, has just been received. This is the *third edition* of this handy and popular little bedside book. The recipes for sick dishes have all been tried, and are those largely used by the Detroit hospitals where the two contributors of them served as matrons. Added to these are var-

ious diet tables, as for: anemia, Bright's disease, calculus, cancer, consumption, diabetes, dyspepsia, fevers, gout, obesity, rheumatism, uterine fibroids, etc., as given by the highest authorities. The booklet is intended to be given to the family by the physician, and for such purposes one-half dozen will be sent, prepaid, on receipt of \$1.00.

History of the St. Louis Medical College is a handsome quarto publication recently issued. It contains 89 handsome half-tone illustrations of the faculty and alumni. The portraits of every member of the faculty since the foundation of the college up to and including this year are given. A complete list of the alumni is also given, and, all in all, it is a volume that no graduate of the college can afford to be without. It is published by Mr. T. G. Waterman, 304 N. 4th St., St. Louis, the price being fifty cents. It should have a large sale with the alumni and their friends.

The Physician's Visiting List is an indispensable object in his daily professional work. We have just received that of P. Blakiston's Son & Co., of Philadelphia, for 1899, and it is certainly neat and well gotten up, containing a mass of useful information besides the blank pages necessary to carry on the memoranda incident to practice. A list for twenty-five patients a week, with tucks, pocket and pencil, is issued by this firm for \$1.00. It is sold by all booksellers, and if they do not keep it in stock will be sent post-paid by the publishers on receipt of price. It is a very popular list, as its continuous publication for forty-eight years attests.

MELANGE.

National Pure Food and Drug Congress.—The second annual meeting will be held at Columbian University Hall, Washington, D. C.

The Executive Committee of the National Pure Food and Drug Congress have issued a call for a meeting on January 18th, 19th, 20th and 21st, 1899.

Reduced hotel and excursion rates from all points to Washington have been arranged for. The National Hotel will be the headquarters.

All information desired will be furnished on application to any of the officers or the undersigned.

ALEX. J. WEDDERBURN, Cor. Sec'y.

Postponement of the Third Pan-American Medical Congress.—

International Executive Commission of the }
Pan-American Medical Congress. }
Office of the Secretary.

CINCINNATI, Nov. 5th, 1898.

I have the honor to announce that in April, 1898, I received from Dr. José Manuel de los Rios, Chairman of the Committee on Organization of the III. Pan-American Medical Congress, a request that, in consequence of the then existing rebellion in Venezuela, no definite arrangements be made at that time relative to the meeting of the Congress previously appointed to be held in Caracas in December, 1899.

The following communication relative to the same subject is just at hand:

CARACAS, September 25, 1898.

DR. CHARLES A. L. REED,

Secretary of the International Executive Commission,
Cincinnati, Ohio.

Dear Sir: After having sent my communication dated April last, I find it to be my duty to notify you that, although the considerations pointed out in it have already ended, our country has been scourged by smallpox, which has taken up all our physicians' activities and time, depriving them of going into scientific works. And, as that state of mind of our people and government after such calamities as war and epidemic, would greatly interfere with the good success of our next meeting, I beg leave to tell you, in order you will convey it to the International Executive Committee, that our Government and this Commission would be grateful to have the meeting which was to take place in Caracas in December, 1899, adjourned for one year later. I am, dear Doctor,

Yours respectfully,

THE PRESIDENT.

[Signed] DR. JOSE MANUEL DE LOS RIOS.

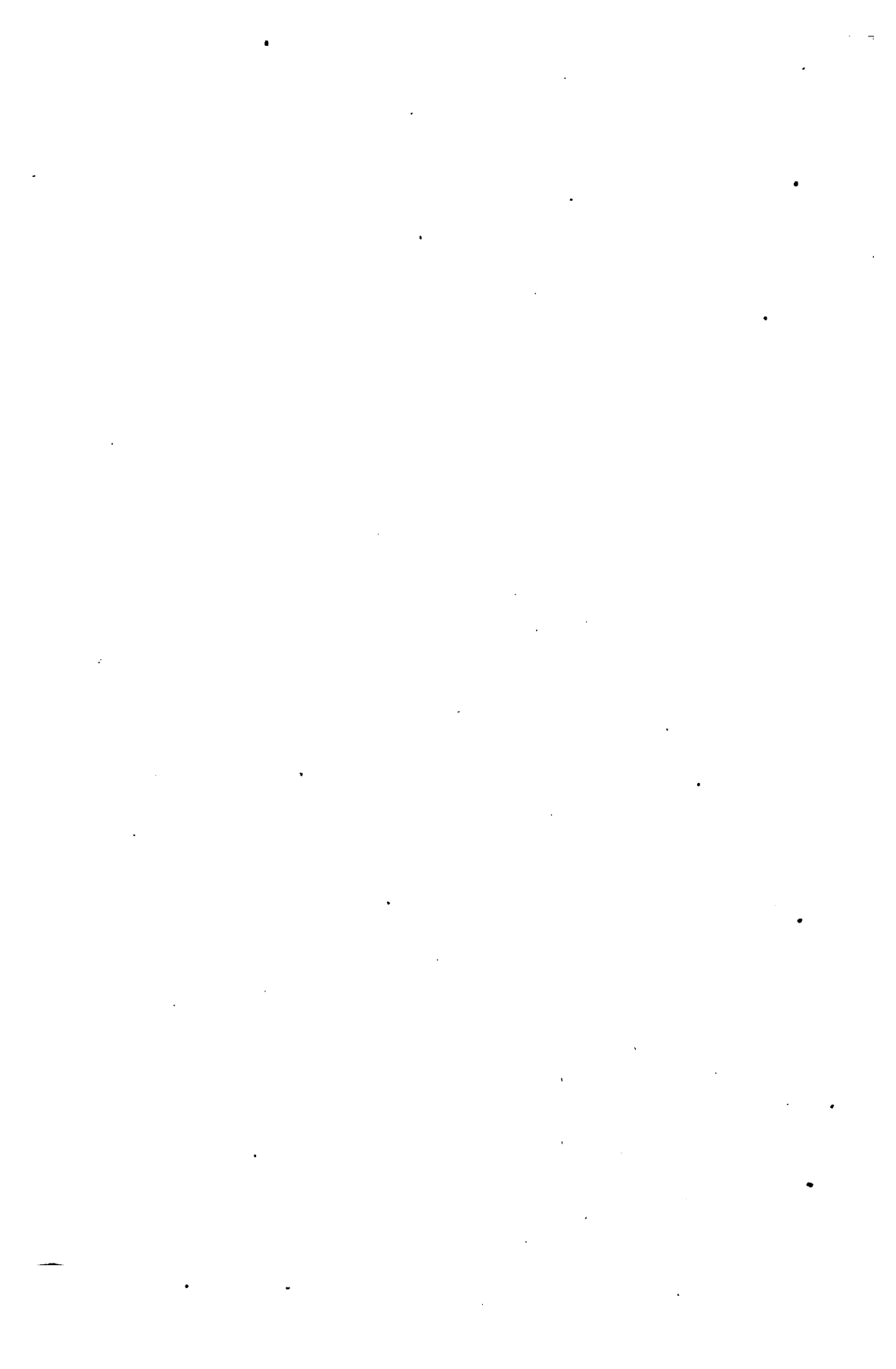
In accordance with the request of the Government of Venezuela, and of the Committee on Organization, the III. Pan-American Medical Congress is hereby postponed to meet in Caracas in December, 1900.

For the International Executive Commission.

CHARLES A. L. REED, Secretary.







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